

*California Department of Transportation  
Division of Maintenance*

***Structure Maintenance and Investigations***

---

**B**<sub>RIDGE</sub>

**I**<sub>NSPECTION</sub>

**R**<sub>ECORDS</sub>

**I**<sub>NFORMATION</sub>

**S**<sub>YSTEM</sub>

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## STANDARD PLANS DATED JULY 1992

A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B2-3	16" CAST-IN-DRILLED-HOLE CONCRETE PILE
B3-1	RETAINING WALL TYPE 1
B3-8	RETAINING WALL DETAILS NO. 1
B7-1	BOX GIRDER DETAILS
B7-6	DECK DRAINS TYPES D-1 & D-2
B7-10	UTILITY OPENING BOX GIRDER
B8-5	CAST-IN-PLACE PRESTRESS GIRDER DETAILS
B11-53	CONCRETE BARRIER TYPE 25

## \* COPPER NAIL FINAL ELEVATIONS

1	308.17	13	302.51	25	307.46	37	310.06	49	303.28
2	308.12	14	301.94	26	306.73	38	309.94	50	303.26
3	308.11	15	301.30	27	306.07	39	309.80	51	303.02
4	307.94	16	301.29	28	305.19	40	309.59	52	310.88
5	307.75	17	301.07	29	304.32	41	309.36	53	310.81
6	307.47	18	300.99	30	303.30	42	308.97	54	310.81
7	307.16	19	308.93	31	302.69	43	308.20	55	310.70
8	306.61	20	308.92	32	302.06	44	307.41	56	310.62
9	305.88	21	308.78	33	302.05	45	306.53	57	310.42
10	305.25	22	308.56	34	301.80	46	305.58	58	310.18
11	304.39	23	308.27	35	310.07	47	304.64	59	309.72
12	303.51	24	307.96	36	310.07	48	303.99	60	308.70

## PILE DATA - CIDH CONCRETE PILES

Location			Diameter	Design Loading (Service Load)	Nominal Resistance Compression	Cut-Off Elevation	Specified TI Elevation
LEFT BRIDGE	Abut 1	Abutment	16"	70 Tons	280 Kips	—	245.0
		Ref. Wall H-10'	16"	70 Tons	280 Kips	—	250.0
		Ref. Wall H-6'	16"	70 Tons	280 Kips	—	254.0
		Ref. Wall H-4'	16"	70 Tons	280 Kips	—	258.0
	Bent 2		96"	1680 Tons	6720 Kips	267.5	204.0
	Bent 3		96"	1893 Tons	7572 Kips	267.0	183.0
	Bent 4		96"	2058 Tons	8232 Kips	257.0 $\Delta$	172.0
	Bent 5		96"	1970 Tons	7880 Kips	258.5 $\Delta$	184.0 $\Delta$
	Bent 6		96"	1805 Tons	7220 Kips	256.0	184.0
	Abut 7	Abutment	16"	70 Tons	280 Kips	—	251.0
		Ref. Wall H-10'	16"	70 Tons	280 Kips	—	256.0
		Ref. Wall H-6'	16"	70 Tons	280 Kips	—	260.0
		Ref. Wall H-4'	16"	70 Tons	280 Kips	—	262.0
RIGHT BRIDGE	Abut 1	Abutment	16"	70 Tons	280 Kips	—	245.0
		Ref. Wall H-10'	16"	70 Tons	280 Kips	—	250.0
		Ref. Wall H-6'	16"	70 Tons	280 Kips	—	254.0
		Bent 2		96"	1710 Tons	6840 Kips	264.5
	Bent 3		96"	1895 Tons	7580 Kips	265.0	175.0
	Bent 4		96"	2085 Tons	8340 Kips	256.0	172.0
	Bent 5		96"	2048 Tons	8192 Kips	263.0 $\Delta$	187.0 $\Delta$
	Bent 6		96"	2010 Tons	8040 Kips	248.5	177.0
	Abut 7	Abutment	16"	70 Tons	280 Kips	—	251.0
		Ref. Wall H-10'	16"	70 Tons	280 Kips	—	256.0
		Ref. Wall H-6'	16"	70 Tons	280 Kips	—	260.0
		Ref. Wall H-4'	16"	70 Tons	280 Kips	—	264.0

## AS BUILT PLANS

Contract No. 06-342604  
Contractor Benco  
Resident Engineer L. HICKINBOTHAM  
Date of Completion 11/97  
BY DAND L. VALLEJO

DESIGN: BRIDGE DESIGN SPECIFICATIONS  
(1983 AASHTO with Interims and Revisions by CALTRANS)

DEAD LOAD: Includes 35 psf for future wearing surface.

LIVE LOADING: HS20-44 and alternative and permit design load.

SEISMIC LOADING: Peak Rock Acceleration = 0.1g  
Depth of Alluvium > 150 ft.

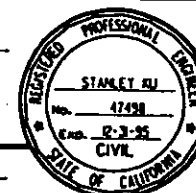
REINFORCED CONCRETE:  $f_y = 60,000$  psi  
 $f'_c = 3,250$  psi  
 $n = 9$   
Transverse Deck Slabs (Working Stress Design)  
 $f_s = 20,000$  psi  
 $f_c = 1,200$  psi  
 $n = 10$

PRESTRESSED CONCRETE: See "Prestressing Notes"

△				
△				
△				
△	8-8-96	Changed Elevation	DL	OH
△	6-19-96	Changed Elevation	SK	DL
MARK	DATE	DESCRIPTIONS	BY	CH'D
REVISIONS				

CONTRACT CHANGE ORDER NO. 14  
SHEET 2 OF 2

DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN 8	BRIDGE NO.	ROUTE 41/99 SEPARATION
DETAILS	BY Roberto Lim	CHECKED Duc Trinh			42-266 R/L	
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh			R22J	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					CU 0607 EA 34260	INDEX TO PLANS
DISCARD PRINTS BEARING EARLIER REVISION DATES					REVISION DATES (PRELIMINARY STAGE OR VI)	PLAN SHEET 2 OF 2



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## GENERAL NOTES LOAD FACTOR DESIGN

DIST.	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fro	41,99	R20.7/R22.1, 19.2/19.9		274	368

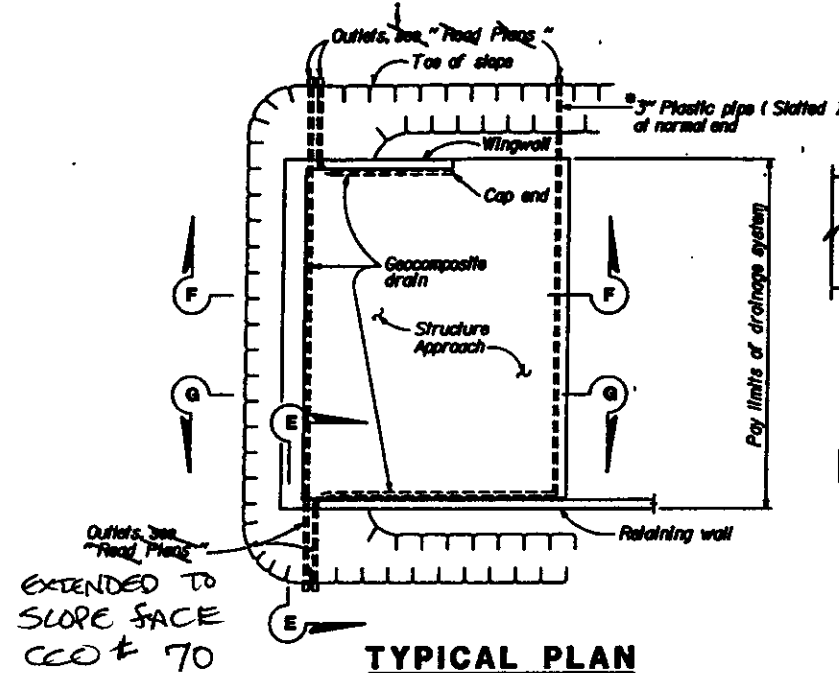
REGISTERED ENGINEER - CIVIL

1-22-96

PLANS APPROVAL DATE

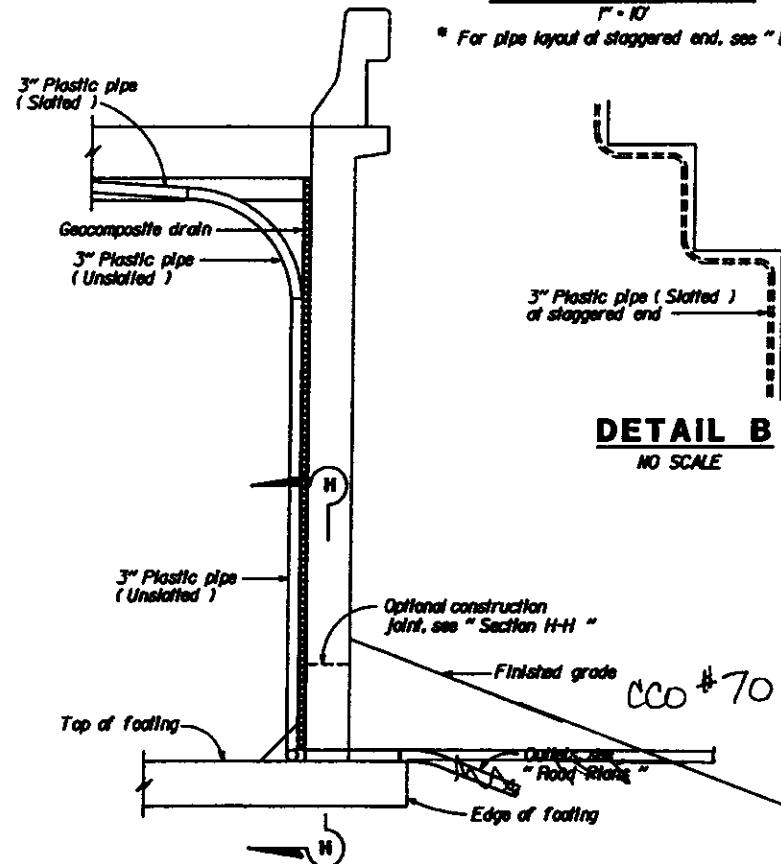
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

STANLEY KU  
1999  
E-3-95  
CIVIL  
STATE OF CALIFORNIA



**TYPICAL PLAN**  
1" = 10'

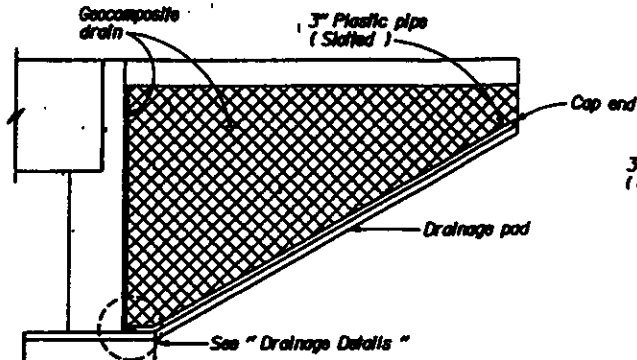
\* For pipe layout of staggered end, see "Detail B."



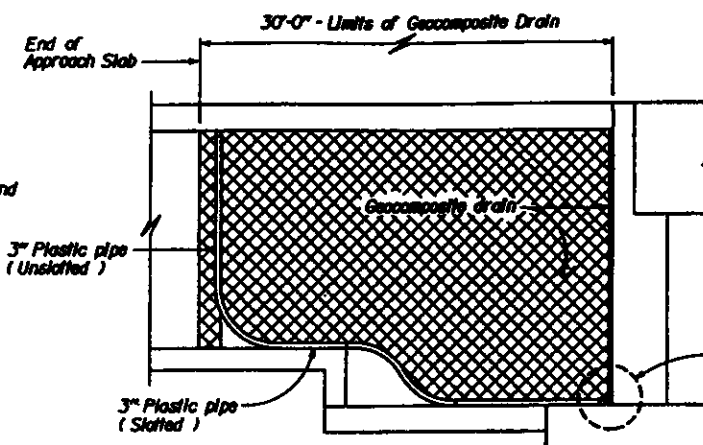
**DETAIL B**  
NO SCALE

**SECTION E-E**  
1/2" = 1'-0"

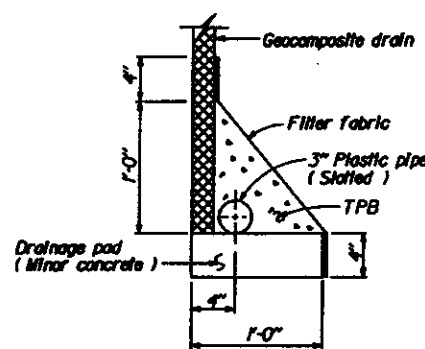
NOTE: Bends and junctions in 3" plastic pipe are 30" radius min.



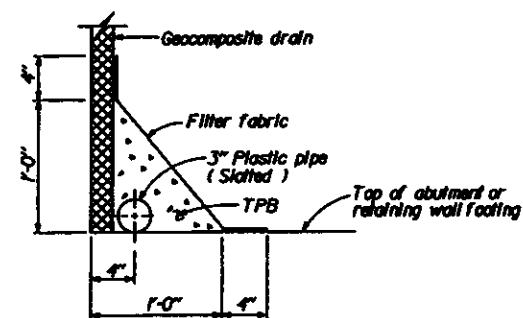
**CANTILEVER WINGWALL SECTION F-F**  
1/4" = 1'-0"



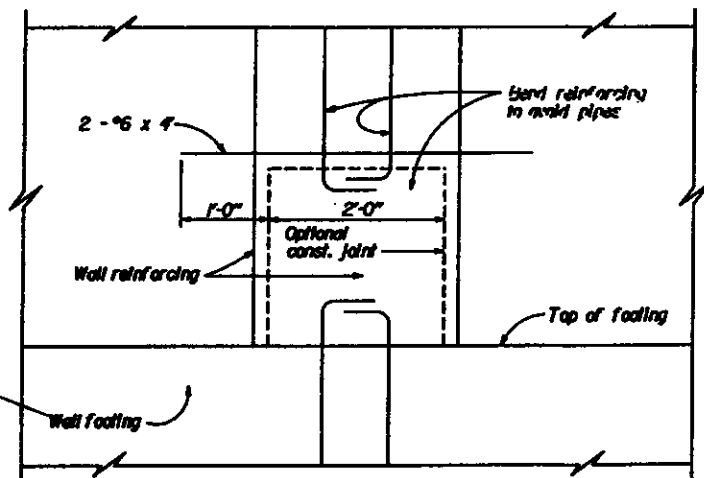
**RETAINING WALL WINGWALL SECTION G-G**  
1/4" = 1'-0"



**WITHOUT FOOTING DRAINAGE DETAILS**  
1/2" = 1'-0"



**WITH FOOTING**



**SECTION H-H**  
1" = 1'-0"

**AS BUILT PLANS**

Contract No. 06-342604  
Contractor BGN CO  
Resident Engineer L. WICKINGBOTHAM  
Date of Completion 11/97  
BY DAVID C. VALLBOIS

STANDARD DRAWING				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES STRUCTURE DESIGN		ROUTE 41/99 SEPARATION STRUCTURE APPROACH DRAINAGE DETAILS	
FILE NO. XS 22-17	DESIGN BY M. Traffalls	CHECKED E. Thorkildsen	APPROVED BY [Signature]	CU 0607	EA 342601	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET 24	OF 29
DESIGN DATE 8/92	DETAILS BY R. Yoo	CHECKED E. Thorkildsen	DESIGN SUPERVISOR [Signature]						
SUBMITTED BY M. Ho									

ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

0 1 2 3

① BC-1	③ SB LOL	⑤ NB LOL	⑥ S-1	⑦ BC-3	⑧ E Rte 99
R-1150' Δ-54°50'28" T-596.63' L-1007.3'	R-4977' Δ-10°40'28" T-164.96' L-927.24'	R-5023' Δ-10°40'30" T-469.29' L-935.86'	R-1199.91' Δ-39°15'00" T-427.86' L-821.99'	R-2200' Δ-27°32'31" T-418.52' L-827.15'	R-9999.27' Δ-03°09'13" T-275.25' L-550.37'

# AS BUILT PLANS

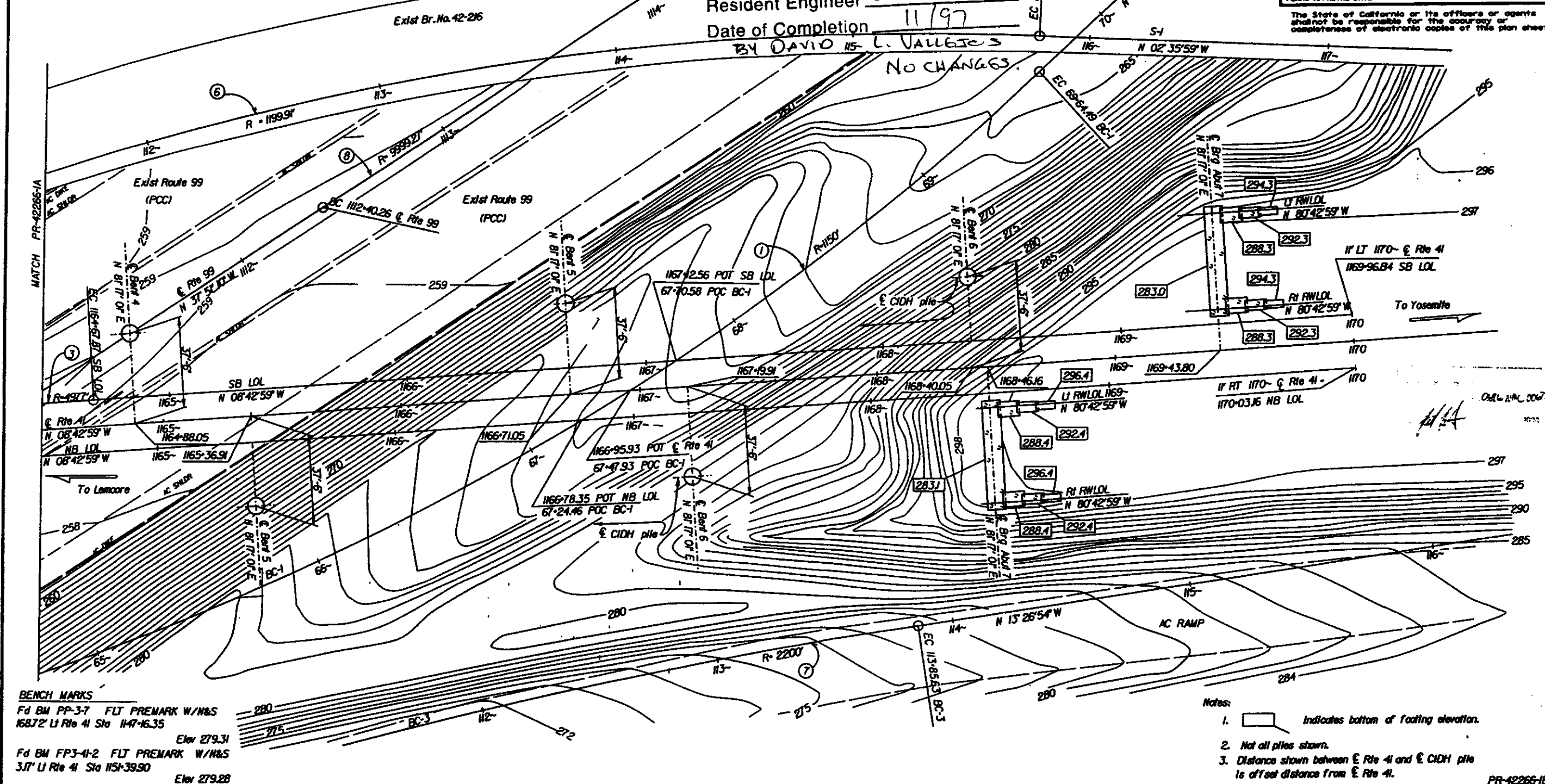
Contract No. 06-342604  
 Contractor Borw  
 Resident Engineer L. HICKINGBOTHAM  
 Date of Completion 11/97  
BY DAVID 115 L. VALLEJO  
NO CHANGES

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	41,99	R20.77/R22.1, 19.2/19.8	255	368

REGISTERED ENGINEER-CIVIL  
 STANLEY KU  
 No. 47498  
 Exp. 12-31-95  
 CIVIL  
 STATE OF CALIFORNIA

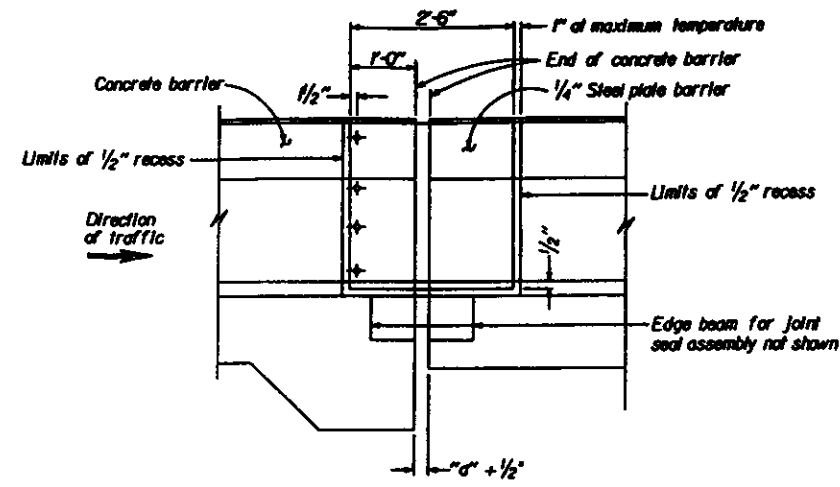
1-22-96  
 PLANS APPROVAL DATE

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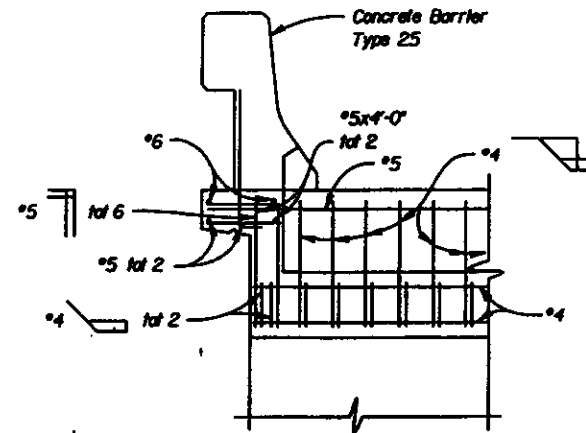
PRELIMINARY INVESTIGATION SECTION				DESIGN		STATE OF CALIFORNIA		DIVISION OF STRUCTURES		ROUTE 41/99 SEPARATION	
SCALE	DATUM	PHOTOGRAMMETRY AS OF:	DRAWN	BY	DATE	DEPARTMENT OF TRANSPORTATION	STRUCTURES DESIGN 8	PROJECT NO.	12-266 R/L	FOUNDATION PLAN NO. 2	
1" = 20'	NGVD, 1929	SURVEYED BY	TRACED	BY	DATE			POST MILE	R221		
ALIGNMENT TIES	DIST 1/4 IN SHEETS	FIELD CHECKED	CHECKED	BY	DATE						
DS OSD 245 11/89											



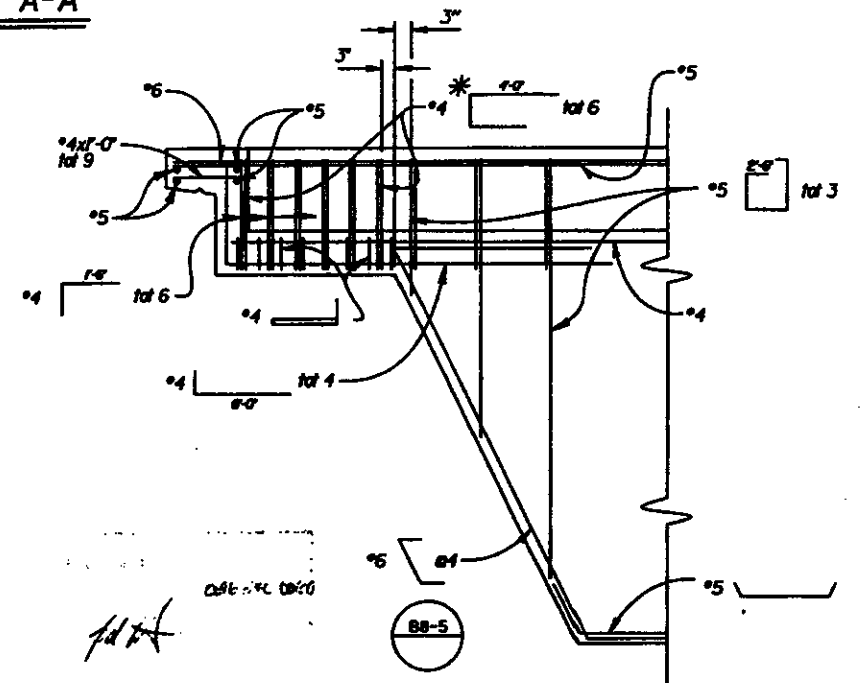


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## SEAL INSTALLATION



## JOINT SEAL ASSEMBLY BLOCKOUT AT STRUCTURE APPROACH



**SECTION B-B**

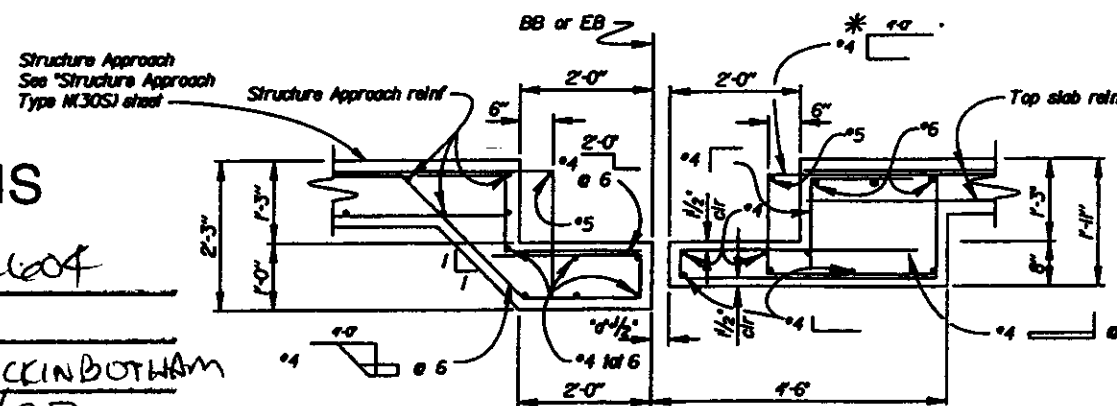
 $\frac{3}{4} = 1.0$ 

**NOTE:** Reinf. shown is in addition to slab reinf., see "Typical Section" sheet.

## AS BUILT PLANS

Date of Completion 11/97

NO CHANGES  
BY DAVID L. VAUGHAN



**SECTION C-C**

**3/4 - 1-0**

ROUTE 41/99 SEPARATION  
ABUTMENT JOINT SEAL DETAILS

03 600 200 (toll free 24/7)

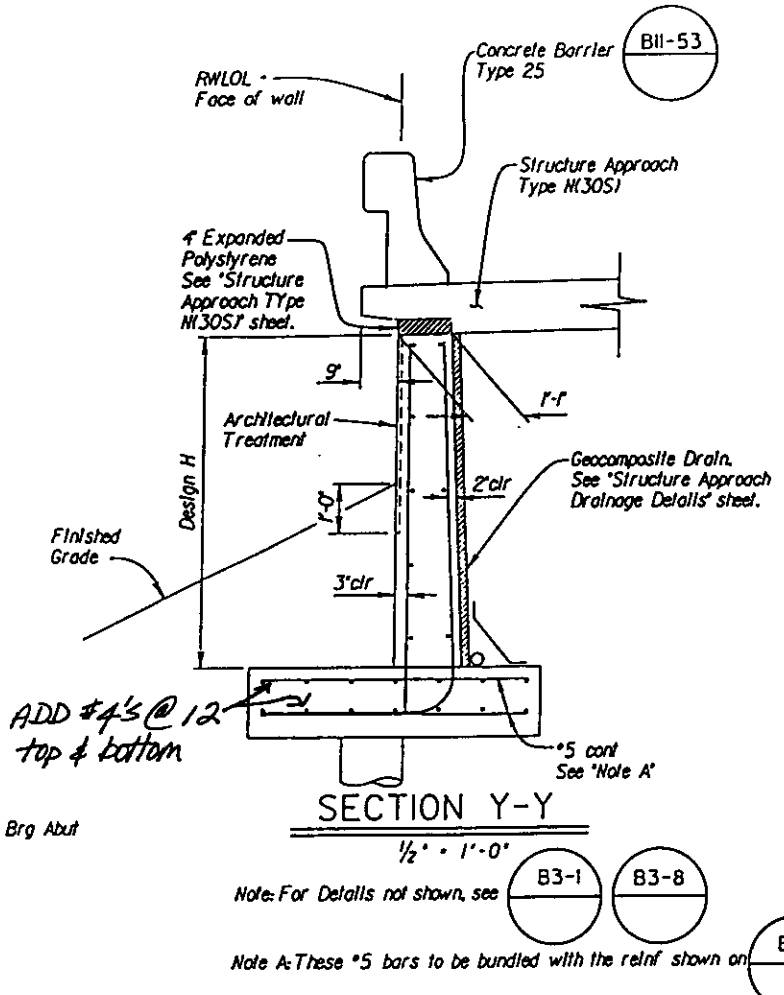
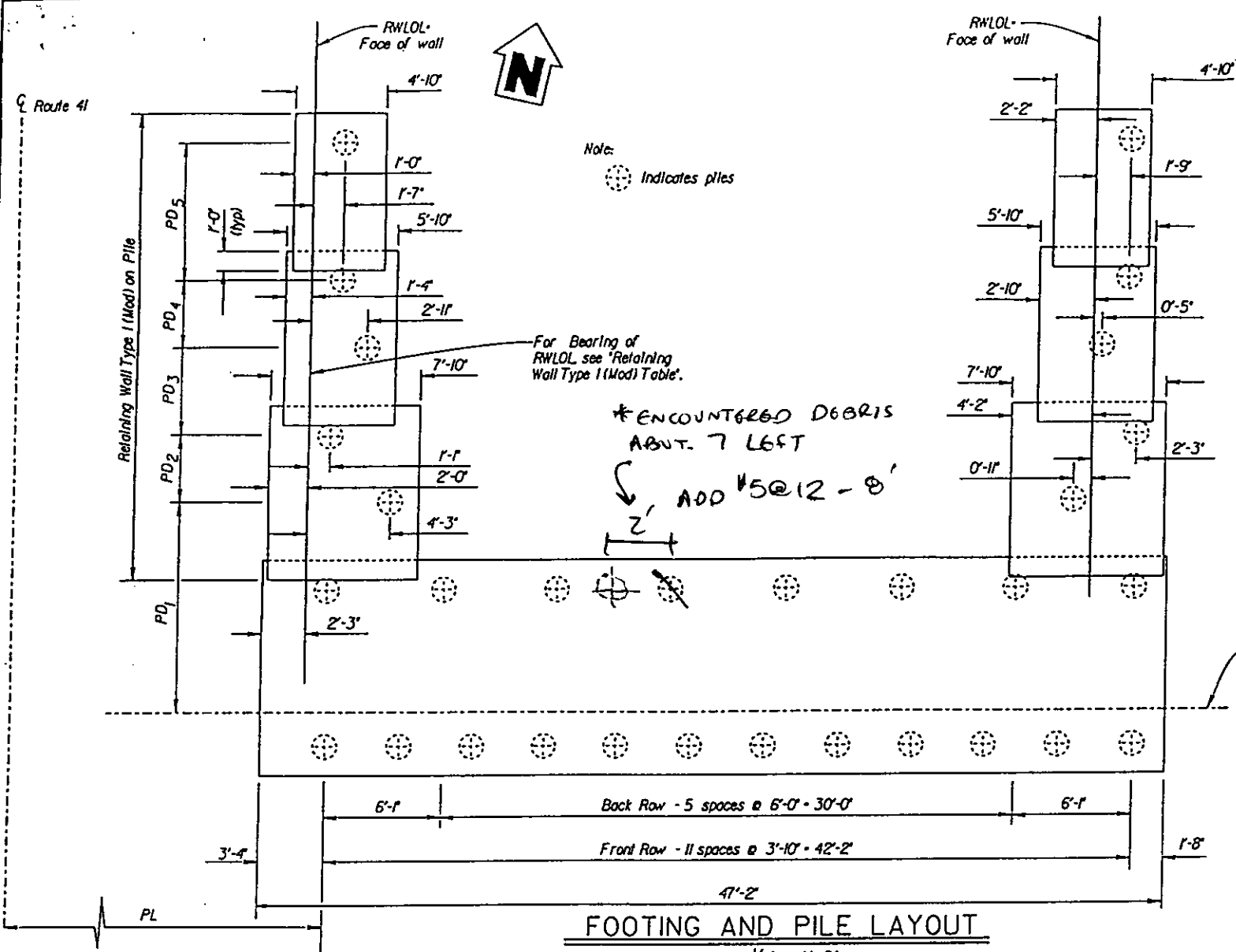
ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

CU 0607	EA 342601
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**INDEPENDENT PRINTS BEARING  
EARLIER REVENUE DATES**

REVENUE PRICE EVALUATION SCALE ONLY?

PLAN FIRST 2	PRICE	QTY
	22	29



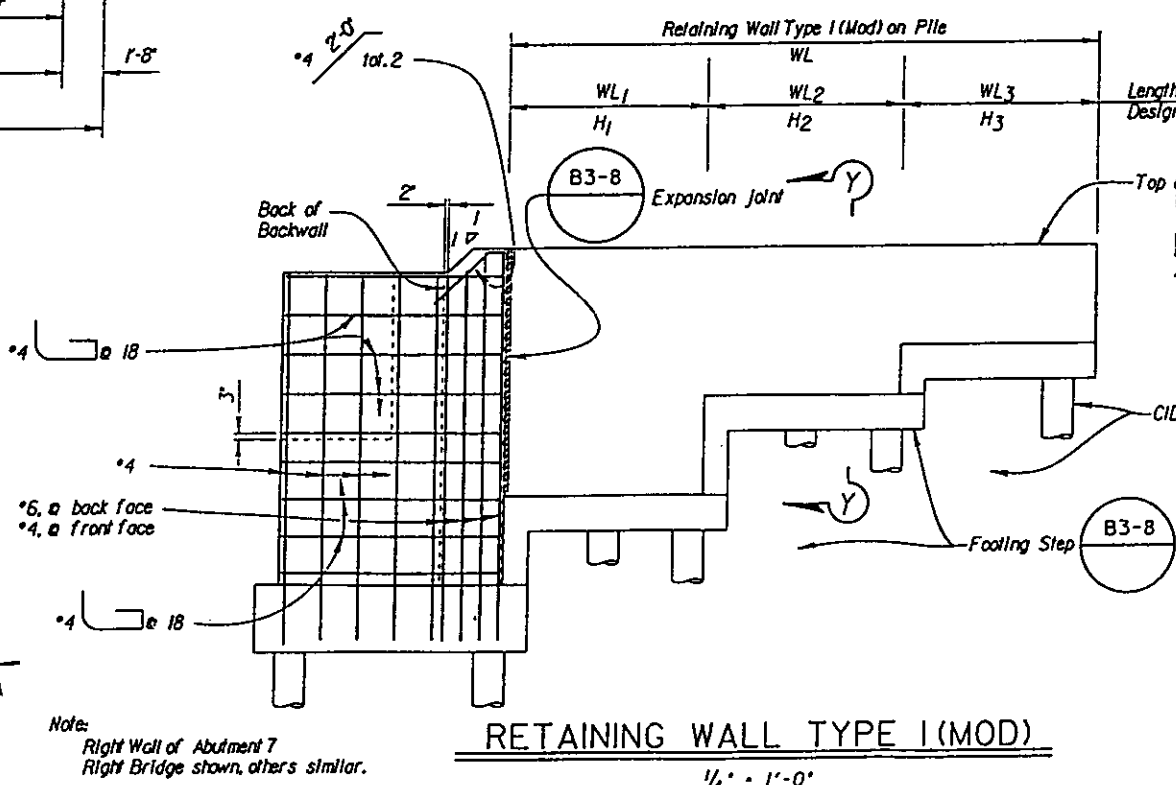
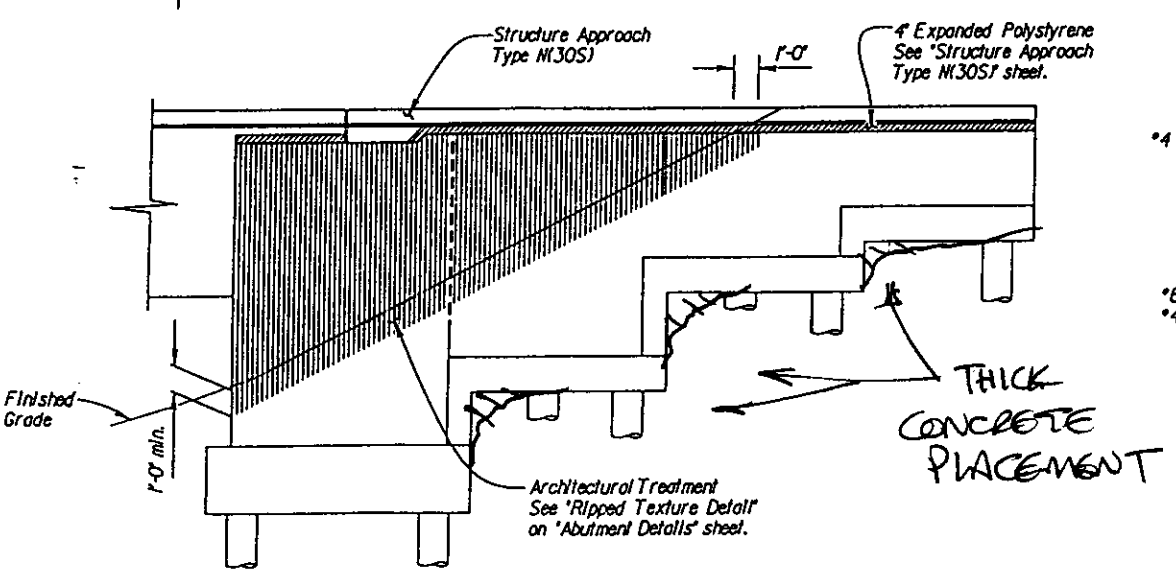
RETAINING WALL TYPE I (MOD) TABLE

LOCATION	RIGHT BRIDGE		LEFT BRIDGE	
	Abutment 7	Abutment 7	Abutment 7	Abutment 7
PD1	10'-9"	10'-9"	10'-9"	10'-9"
PD2	3'-6"	3'-6"	3'-6"	3'-6"
PD3	4'-6"	4'-6"	4'-6"	4'-6"
PD4	3'-6"	3'-6"	3'-6"	3'-6"
PD5	7'-0"	7'-0"	7'-0"	7'-0"
WL	24'-0"	24'-0"	24'-0"	24'-0"
WL1	8'-0"	8'-0"	8'-0"	8'-0"
WL2	8'-0"	8'-0"	8'-0"	8'-0"
WL3	8'-0"	8'-0"	8'-0"	8'-0"
H1	10'-0"	10'-0"	10'-0"	10'-0"
H2	6'-0"	6'-0"	6'-0"	6'-0"
H3	4'-0"	4'-0"	4'-0"	4'-0"
R	NA	NA	NA	NA
BRG.	NB 42'59W	NB 42'59W	NB 42'59W	NB 42'59W
PL	18'-1"	18'-1"	18'-1"	18'-1"

# AS BUILT PLANS

Contract No. 06-342004  
 Contractor BENZO  
 Resident Engineer L. WICKINBOTHAM  
 Date of Completion 11/97  
 BY DAVID L. VALLEJO

RECEIVED  
 NOV 07 1996  
 BY:



NOTE: THIS SHEET TO BE APPLIED TO ABUTMENT 7 LEFT AND RIGHT BRIDGES ONLY. FOR ABUTMENT 1 DETAILS, SEE "RETAINING WALL TYPE I (MOD) DETAILS" SHEET.

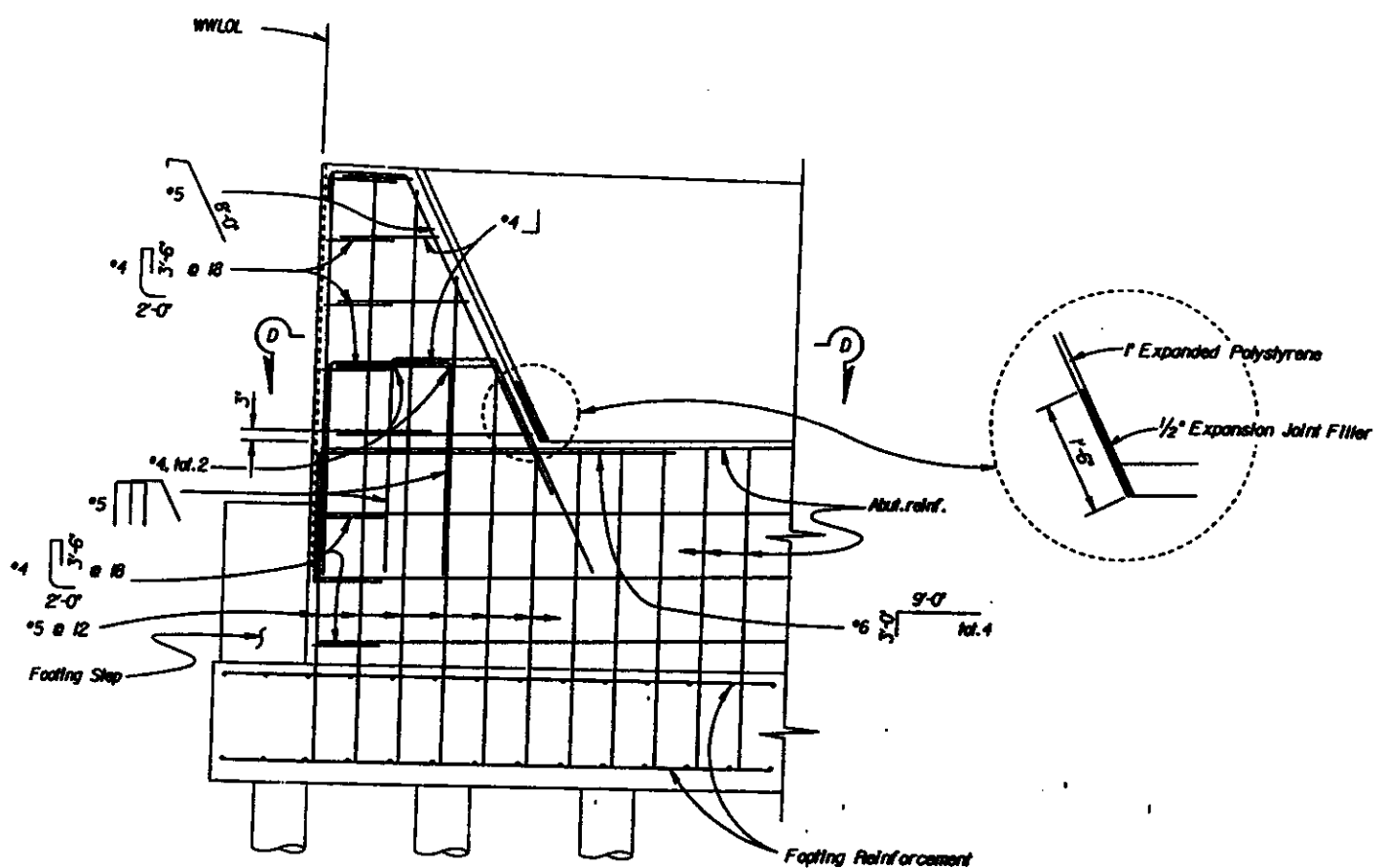
SUPPLEMENTAL SHEET  
 CONTRACT CHANGE ORDER NO. 19  
 SHEET 2 OF 2

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fra	41,99	R20.7/R22.1, R2.2/19.8	257	300

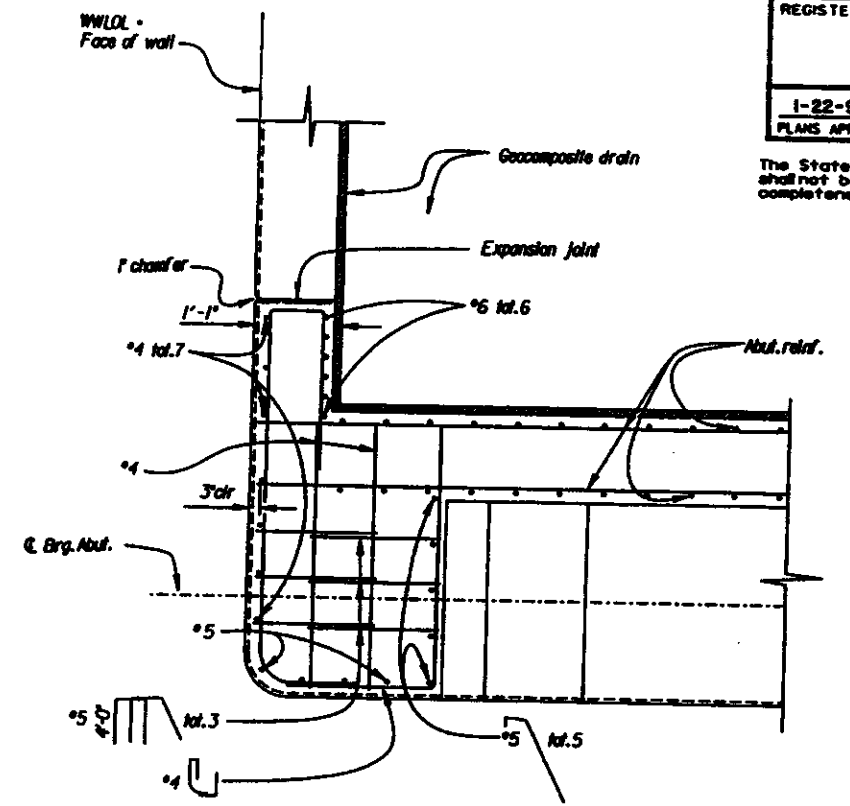
  

REGISTERED ENGINEER - CIVIL	
1-22-96	PLANS APPROVAL DATE

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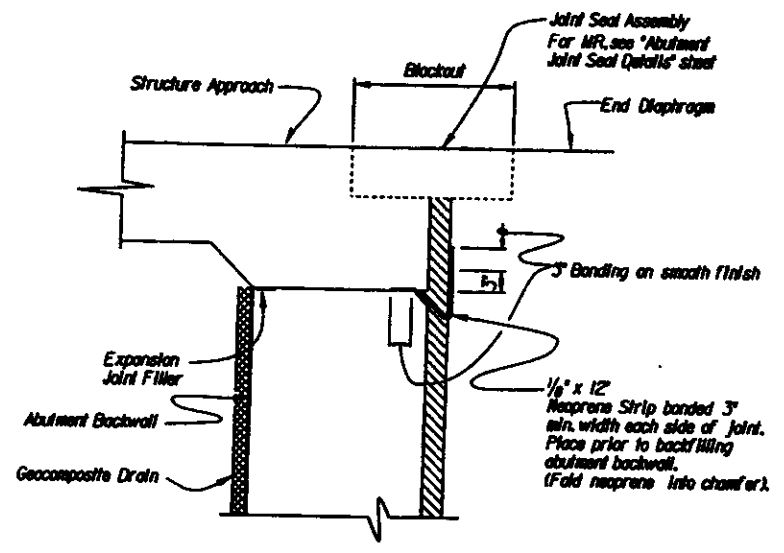
**EXTERNAL KEY DETAIL**  
1/2" - 1'-0"



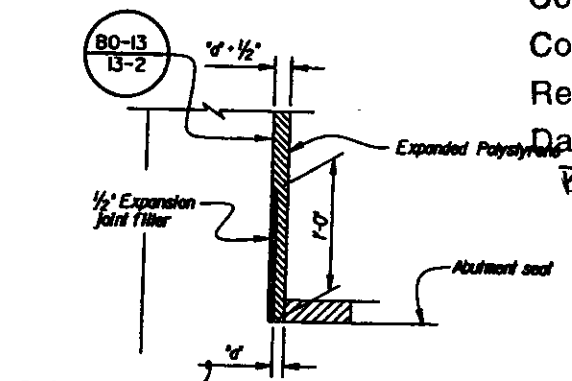
**SECTION D-D**  
1/2" - 1'-0"

**AS BUILT PLANS**

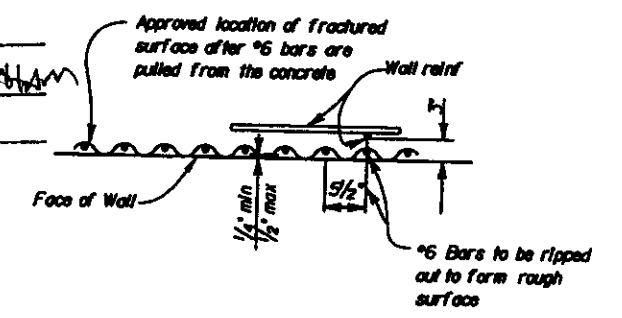
Contract No. 06-342604  
 Contractor BENCO  
 Resident Engineer L. HICKINBOTHAM  
 Date of Completion 11/97  
BY DAVID L. VALLEJOS  
NO CHANGES.



**JOINT PROTECTION DETAILS**  
No Scale



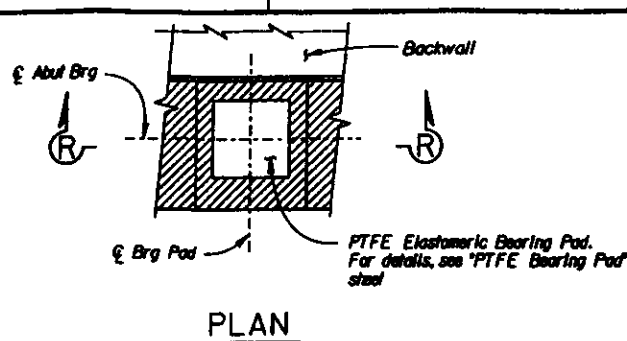
**BACK WALL BASE DETAIL**  
No Scale



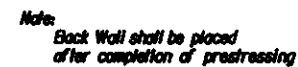
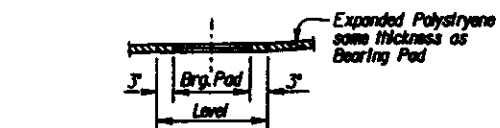
**RIPPED TEXTURE DETAIL**  
1'-0"

DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN <b>8</b>	BRIDGE NO. 42-268R/L	ROUTE 41/99 SEPARATION ABUTMENT DETAILS
DETAILS	BY <i>David Vallejos</i> 08-95	CHECKED Duc Trinh			POST MILE R22.3	
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh			CU 0607 EA 342601	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) PLAN SHEET OF SHEET 7 OF 29	

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**No Scale**  
**Details typical at all bearing pads**



**Note:** Abutment 7 of Right Bridge shown, offers similar.

80-13  
13-2

**B7-10**  
**U-2** *Utility Opening*  
*Rt. Bridge only*

DESIGN	BY Stanley Ku	CHECKED Duc Trinh
DETAILS	BY <i>Stanley Ku</i>	CHECKED Duc Trinh
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh

STATE OF  
CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## DIVISION OF STRUCTURES STRUCTURE DESIGN 8

BRIDGE NO.
42-286R
POST MILE
122.3

ROUTE 41/99 SEPARATION  
ABUTMENT LAYOUT

OS 020 200 1000 3/90

ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

CU 06107  
EA 34260

**CHINESE AND PORTUGUESE BEARING  
EARLIER REVENUE DATES**

REVENUE BILLS WEEKLY STATE OF VT.

Contract No. 06-342604  
Contractor Beno  
Resident Engineer L. H. Kubitson  
Date of Completion 11/97  
By David L. Valeros  
No changes

# AS BUILT PLANS

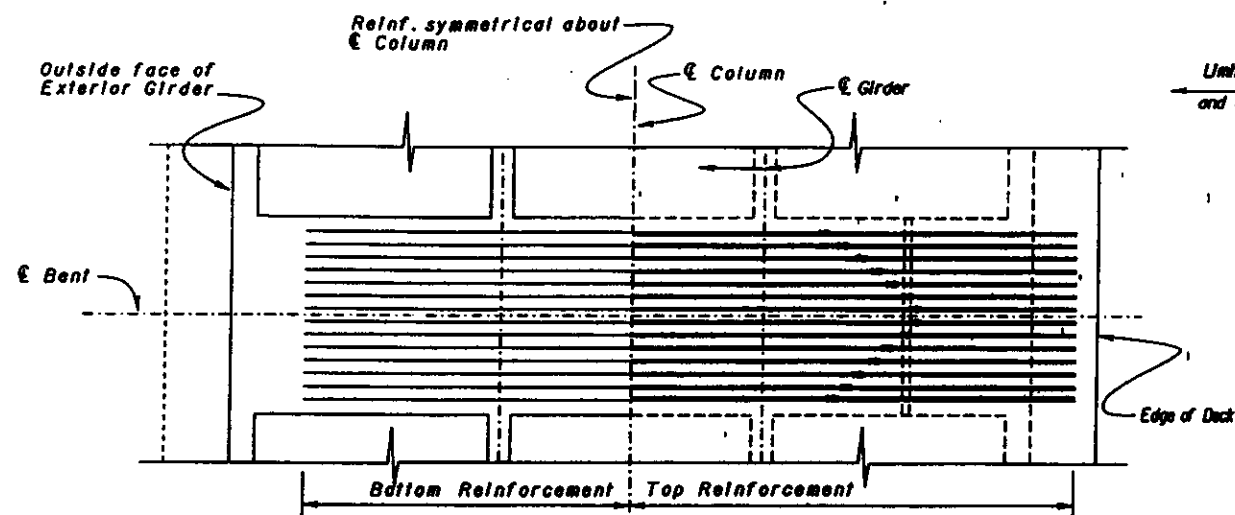


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fres	4199	R20.1/R22.1 19.2/19.8	281	368

REGISTERED ENGINEER - CIVIL	STANLEY KU
1-22-96	PLANS APPROVAL DATE

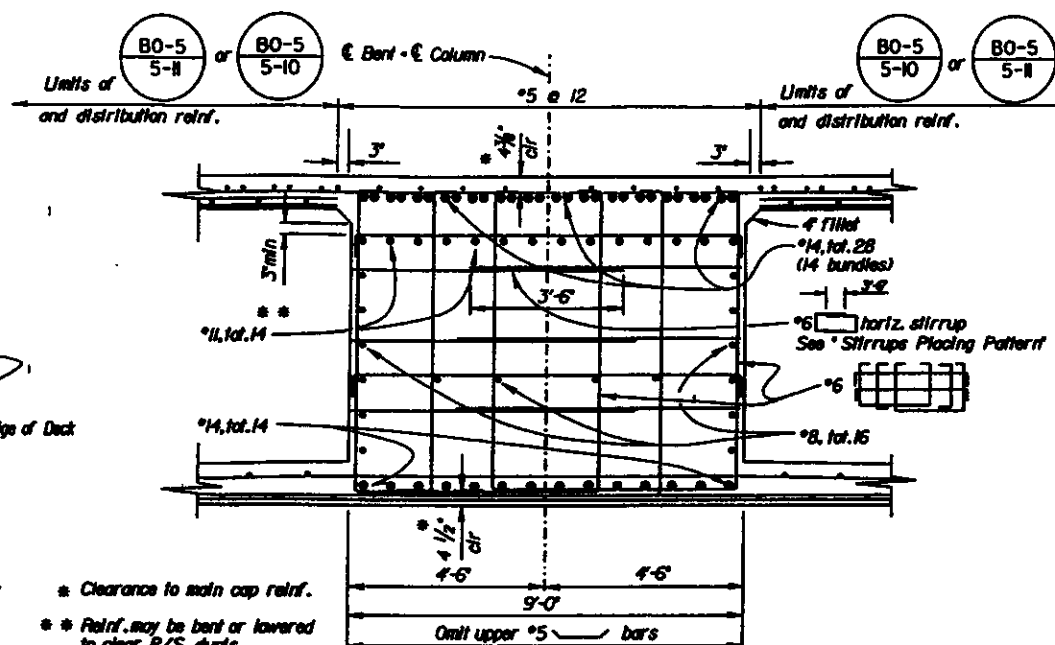
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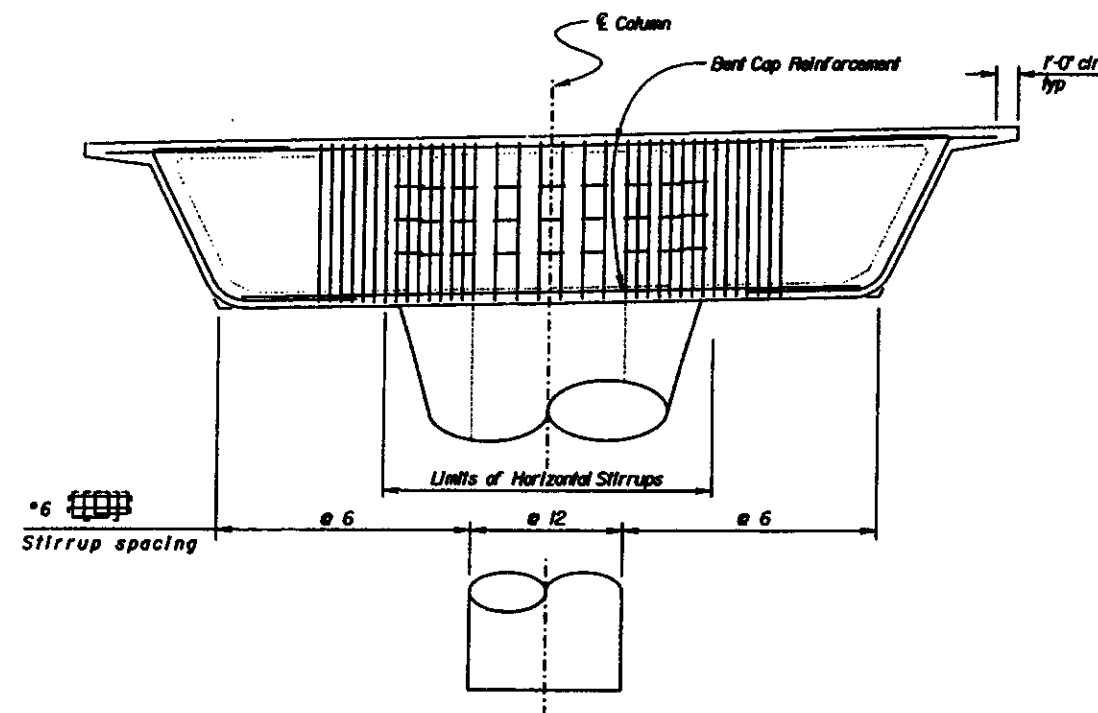
**BENT CAP REINFORCEMENT**  
1/4" - 1'-0"

Notes:  
All reinf. #14 unless otherwise noted.  
— indicates bundled bars

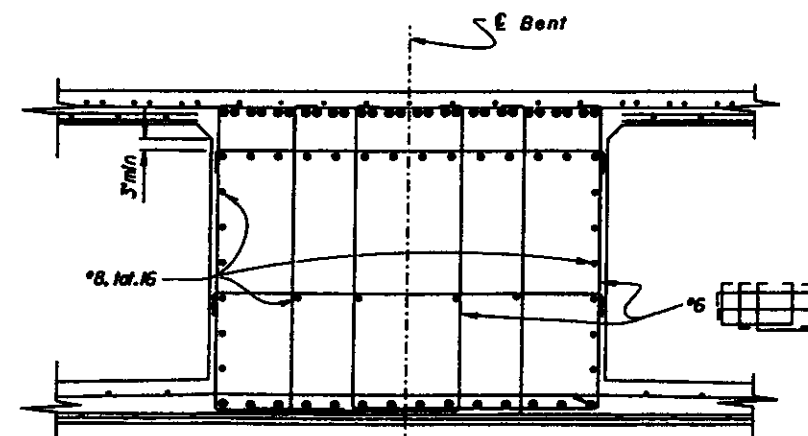
\* Clearance to main cap reinf.  
\* Reinf. may be bent or lowered to clear P/S ducts.



**SECTION N-N**  
1/2" - 1'-0"



**HORIZONTAL STIRRUPS PLACING PATTERN**  
1/4" - 1'-0"



**SECTION M-M**  
1/2" - 1'-0"

Note:  
For locations of Section M-M and N-N, see "Bent Details No. 1" sheet.

Note: For details not shown, see "Section N-N".

## AS BUILT PLANS

Contract No. 06-342604  
Contractor Bentco  
President Engineer L. HICKINOTHAM  
Date of Completion 11/97  
BY DAVID L. VALLEJO  
No CHANGES.

DESIGN	BY Stanley Ku	CHECKED Duc Trinh
DETAILS	BY <i>[Signature]</i> 08-95	CHECKED Duc Trinh
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES  
STRUCTURE DESIGN 8

PROJECT NO.	42-258R/L
POST MILE	122.1

ROUTE 41/99 SEPARATION  
BENT DETAILS NO. 2

ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

CU 0807  
EA 342601

PREPARED BY: [Signature]  
DATE: [Signature]

REVISION DATES: PRELIMINARY, STAGE ONLY

PLAN SHEET NO.	SHEET	OF
11	29	

AS BUILT PLANS

Contract No. 06-342604  
Contractor Benco  
Resident Engineer L. HICKINBOTHAM  
Date of Completion 11/97  
BY DAVID L. VALLEJOS

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fresno	41, 99	R20.17/R22.1 19.2/19.8	260	368

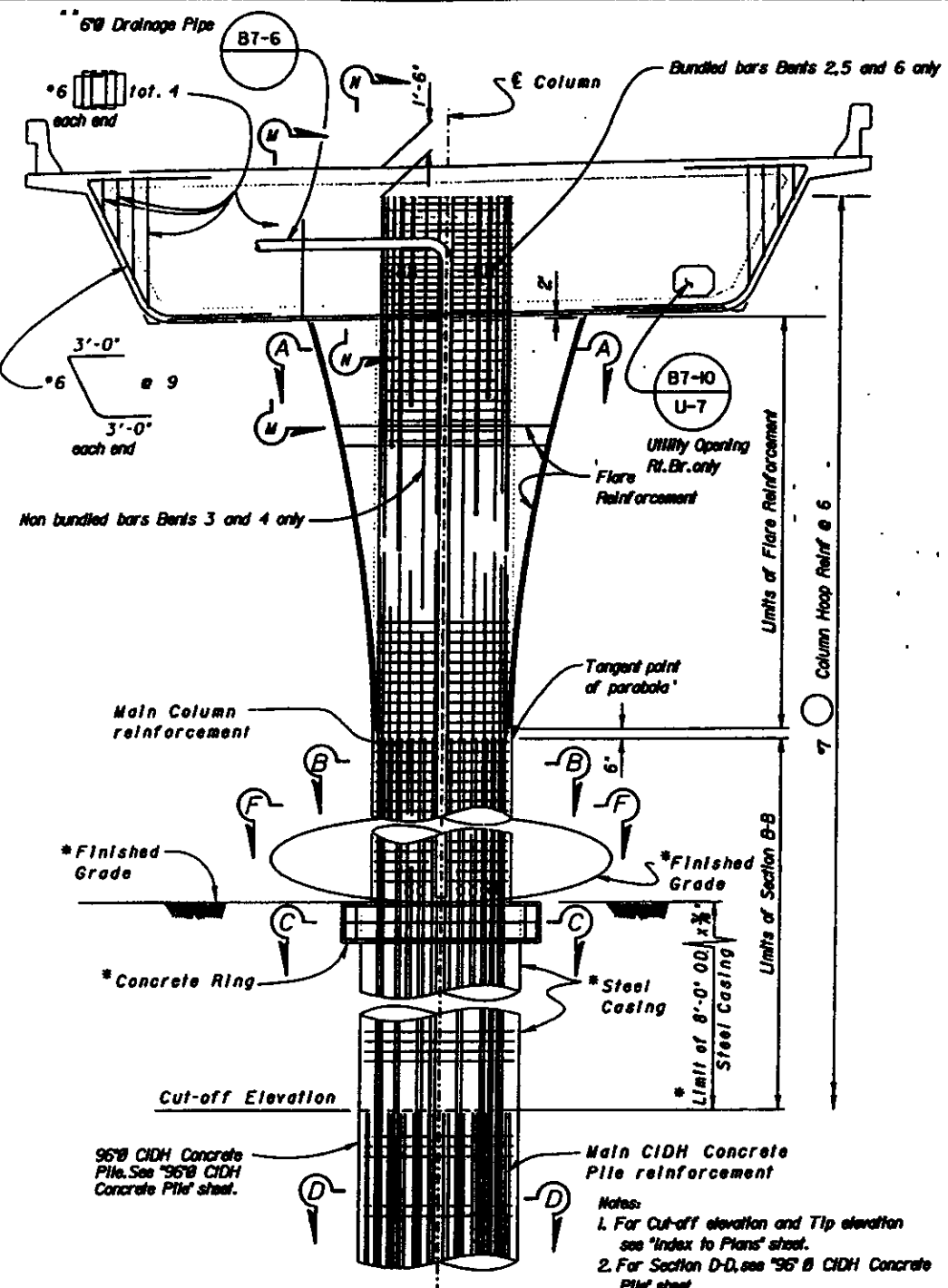
REGISTERED ENGINEER - CIVIL

STANLEY M. KIM

1-22-96

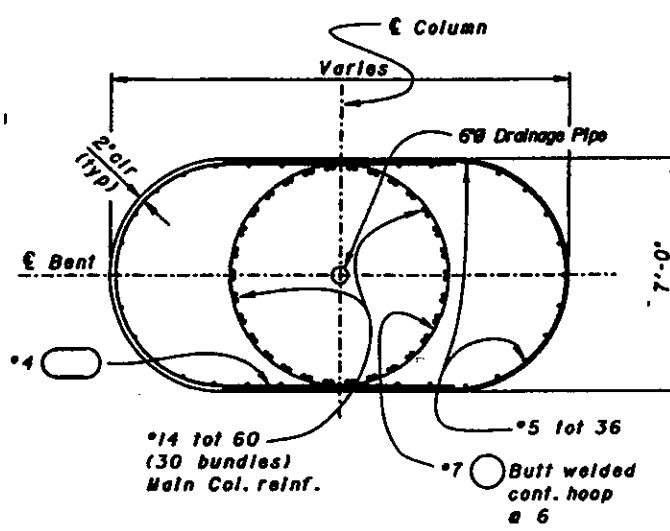
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



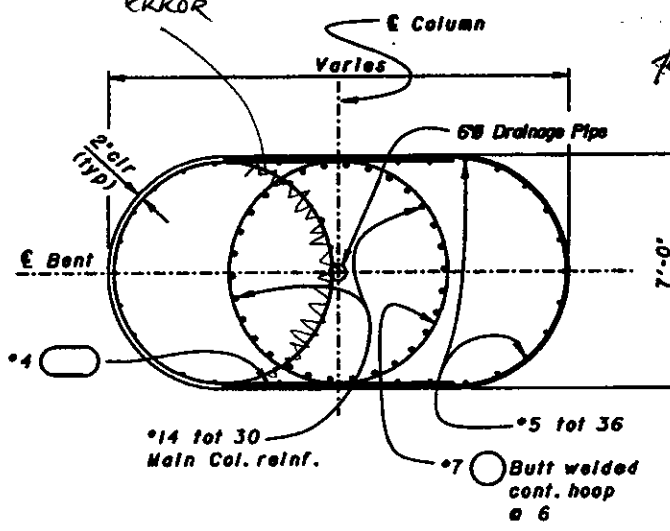
ELEVATION  
1/4" = 1'-0"

- Notes:
1. For Cut-off elevation and Tip elevation see "Index to Plans" sheet.
  2. For Section D-D, see "96" CIDH Concrete Pile" sheet.
  3. For Section M-M and N-N, see "Bent Details No. 2" sheet.
  4. For View F-F and "Column Geometrics", see "Bent Details No. 3" sheet.
  5. For location of tangent point of parabola, see "Column Geometrics" on "Bent Details No. 3" sheet.
  6. All hoop reinforcements are butt welded continuous hoop, see "96" CIDH Concrete Pile" sheet.
- Ø Indicates bundled bars

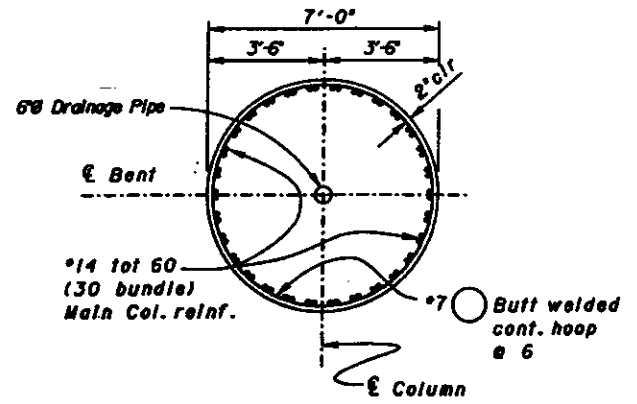


BENTS 2, 5, 6

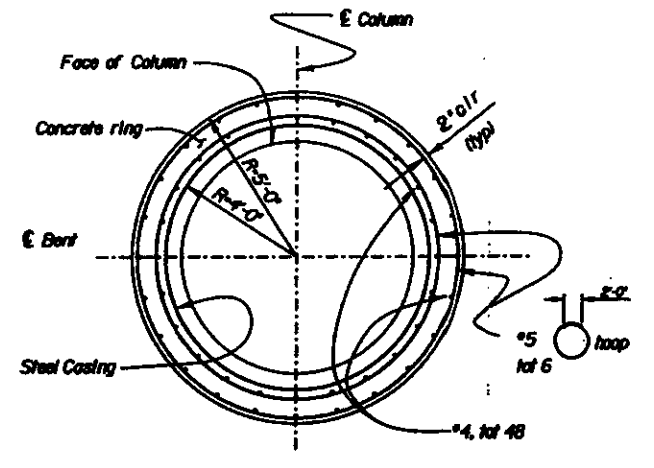
SECTION A-A  
3/8" = 1'-0"



BENTS 3, 4



SECTION B-B  
3/8" = 1'-0"



SECTION C-C  
3/8" = 1'-0"

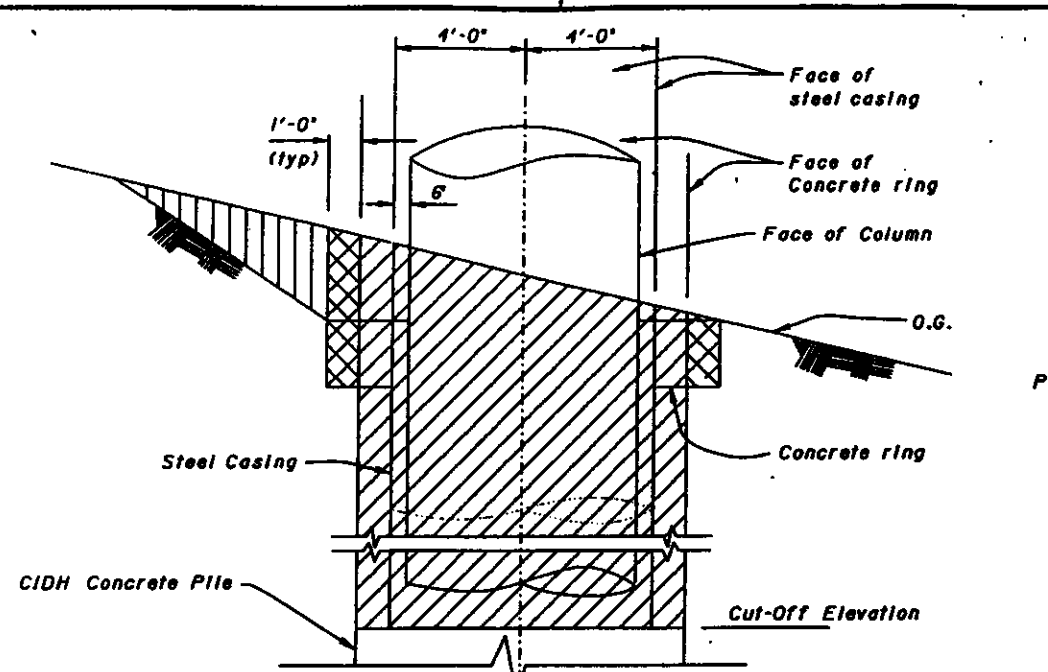
DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA	DIVISION OF STRUCTURES	STRUCTURE DESIGN 8	ROUTE 41/99 SEPARATION
DETAILS	BY Stanley Ku	CHECKED Duc Trinh	DEPARTMENT OF TRANSPORTATION	CU 0807 EA 342001		BENT DETAILS NO. 1
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh				

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

REVISION DATES (PRELIMINARY STATE ONLY)

10 29

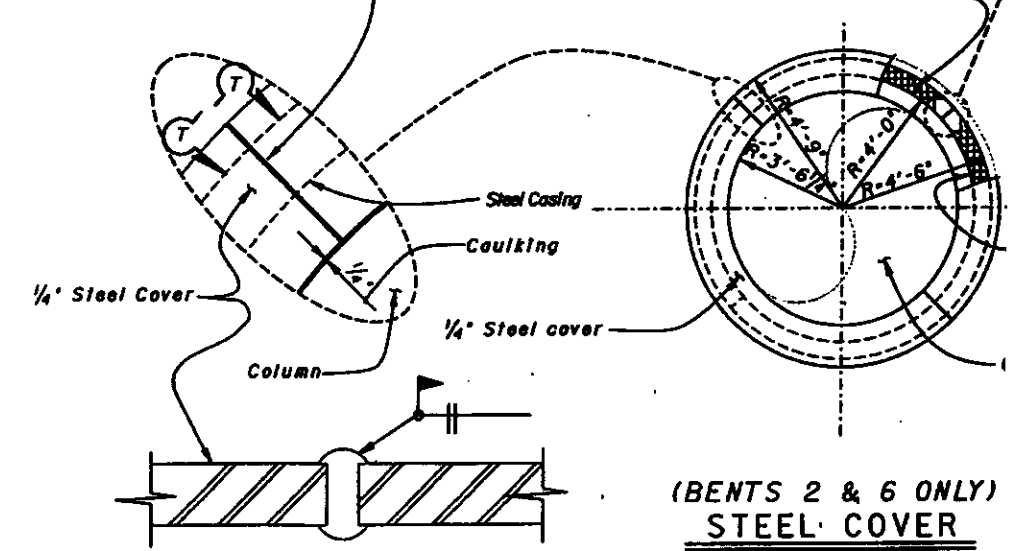


### LIMITS OF STRUCTURE EXCAVATION & BACKFILL

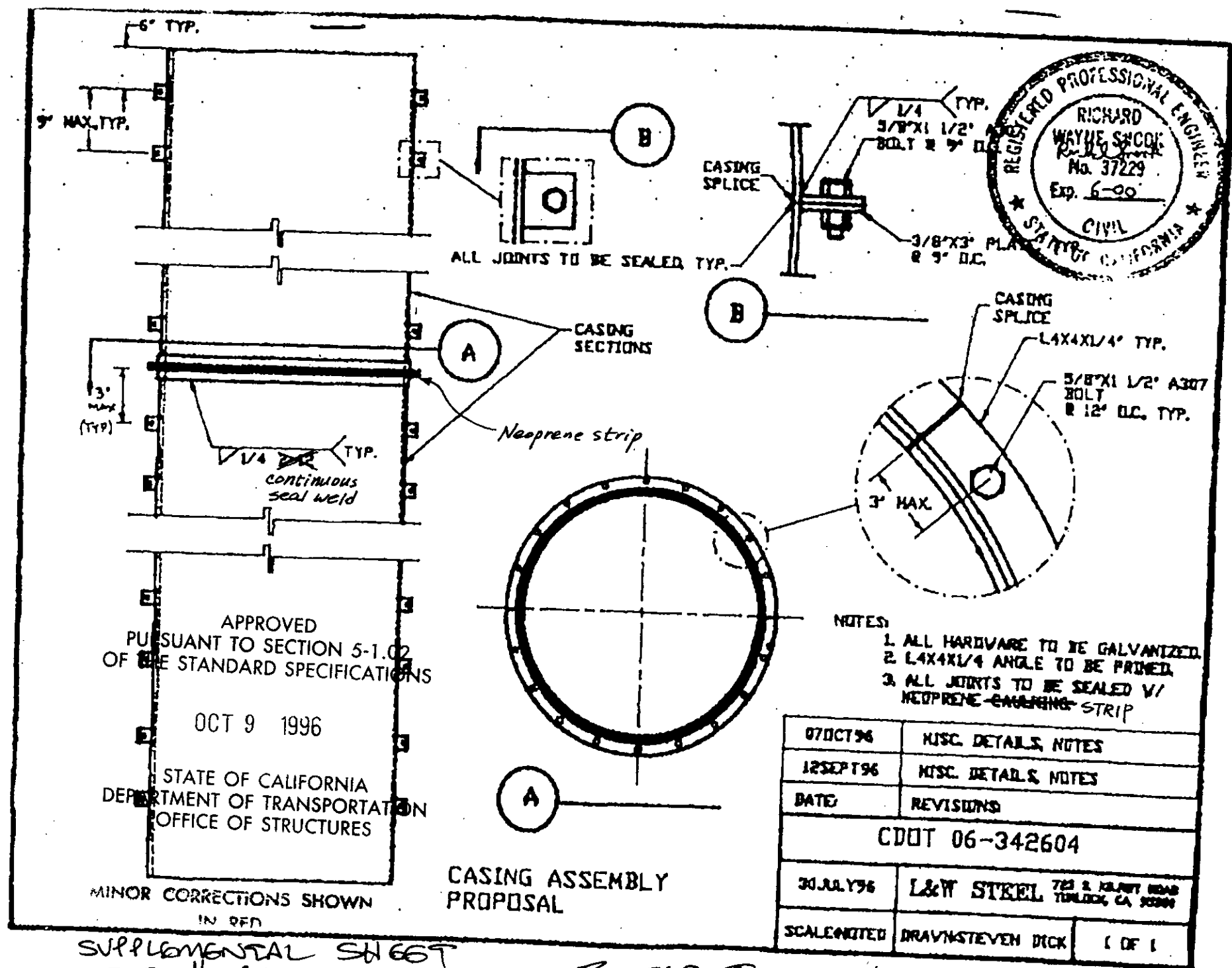
3/4" - 1'-0"

- Indicates Structure Excavation
- Indicates Structure Excavation and Backfill
- Indicates Roadway Excavation

Complete penetration square-groove weld  
Butt joint full length.



(BENTS 2 & 6 ONLY)  
STEEL COVER  
3/4" - 1'-0"



SUPPLEMENTAL SHEET  
CCO # 10  
SHEET 2 OF 2

BOLTED JOINTS IN LIEU OF  
WELDED SEAMS.

### SECTION G-G 3/4" - 1'-0"

DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN 8	BRIDGE NO.	ROUTE 41/99 SEPARATION								
DETAILS	<i>Stanley Ku</i> 08-95	CHECKED Duc Trinh			42-266R/L	BENT DETAILS NO. 3								
QUANTITIES	Stanley Ku	CHECKED Duc Trinh			POST MILE R22J									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			CU 0607 EA 342601		DISCARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES (PRELIMINARY STAGE ONLY)				PLAN SHEET NO.	SHEET	OF
					→			0-0% 0-0% 0-0% 0-0%				12	29	

# AS BUILT PLANS

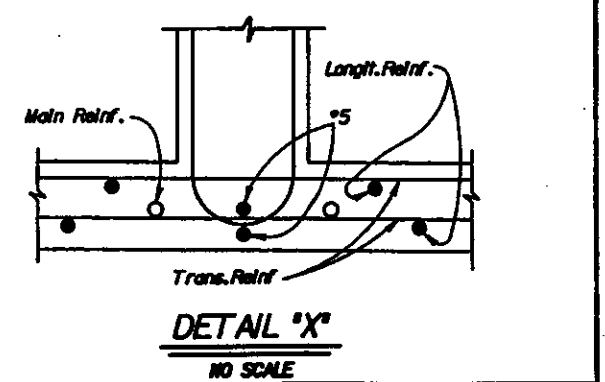
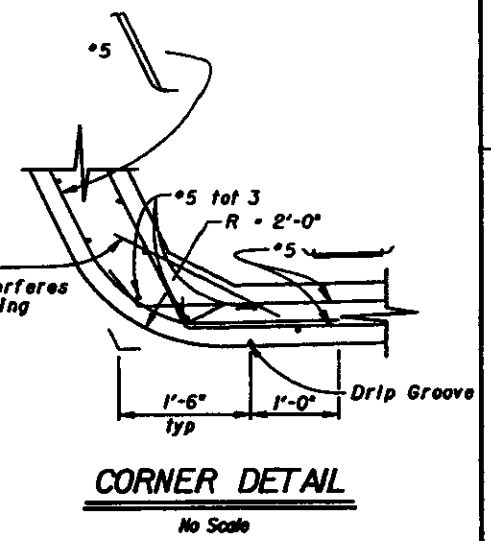
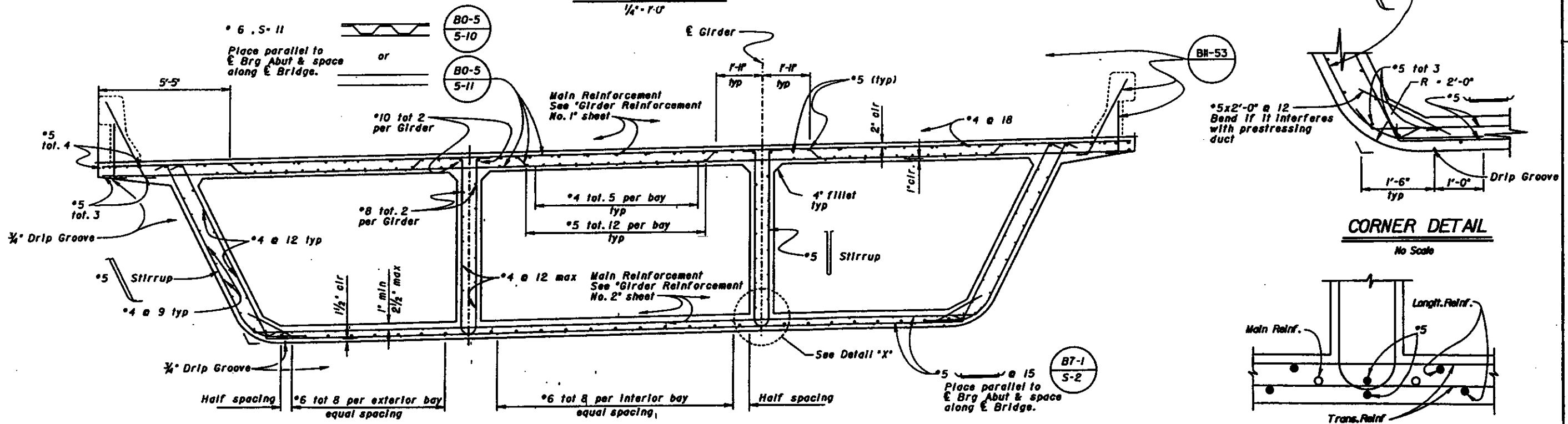
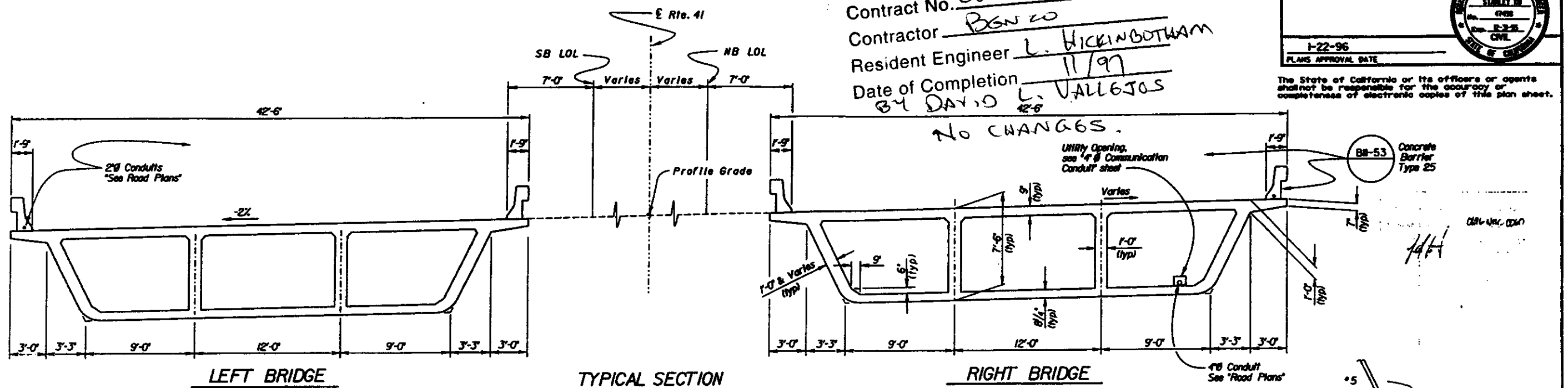
Contract No. 06-342604  
 Contractor BGN 20  
 Resident Engineer L. HICKINBOTHAM  
 Date of Completion 11/97  
BY DAVID L. VALLBOIS

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	4,99	R20.7/R22.1 19.2/19.8	263	368

REGISTERED ENGINEER - CIVIL  
 1-22-96  
 PLANS APPROVAL DATE

STANLEY RU  
 CIVIL  
 DATE OF EXPIRATION

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



DESIGN BY Stanley Ru		CHECKED Duc Trish		STATE OF CALIFORNIA		DIVISION OF STRUCTURES		BRIDGE NO. 42-268R/L		ROUTE 41/99 SEPARATION	
DETAILS BY Stanley Ru		CHECKED Duc Trish		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN 8		POST MILE R22.1		TYPICAL SECTION	
QUANTITIES BY Stanley Ru		CHECKED Duc Trish						CU 0807 EA 342601		PLAN SHEET 13 OF 29	



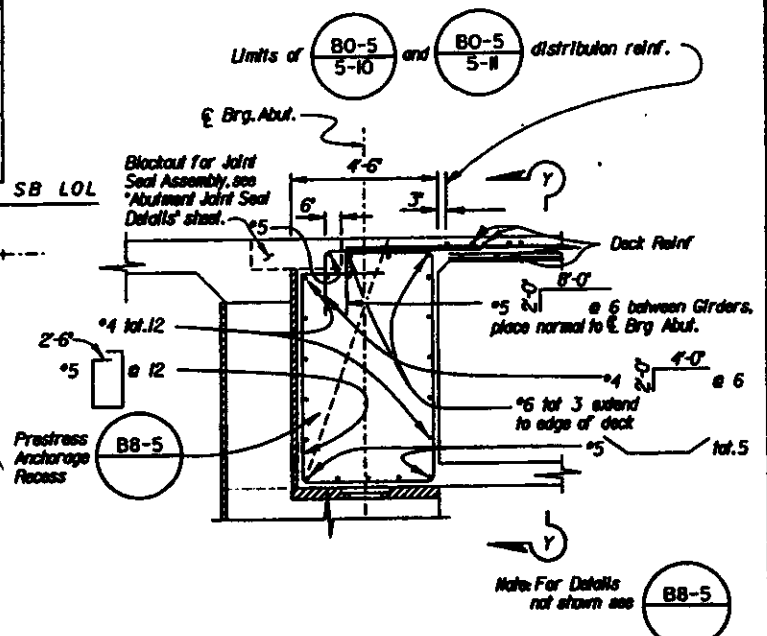
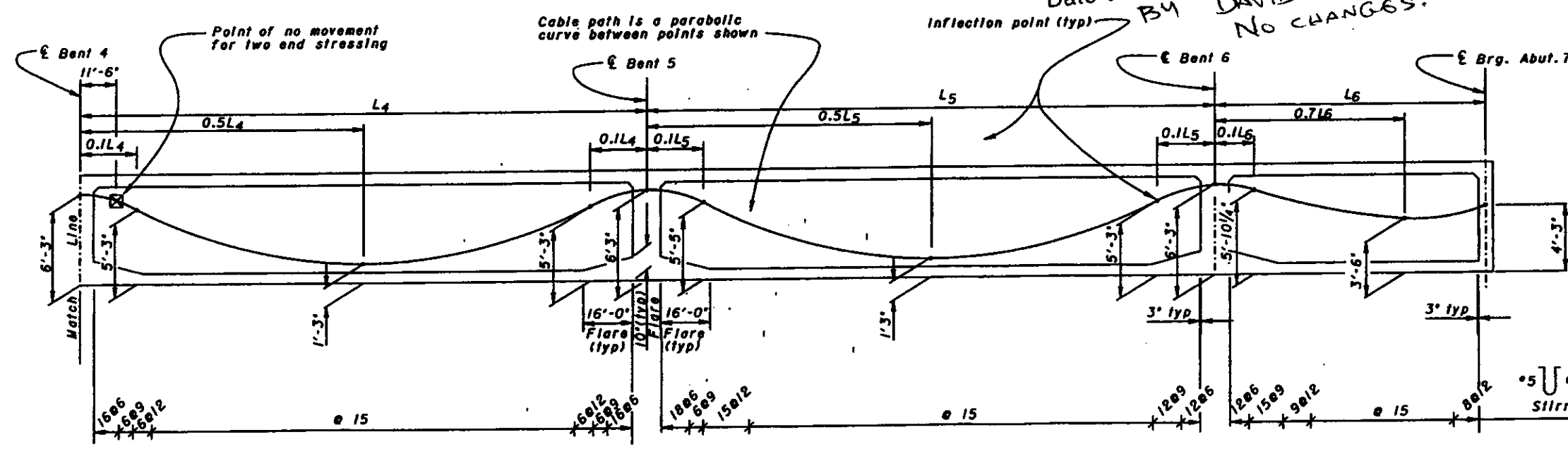
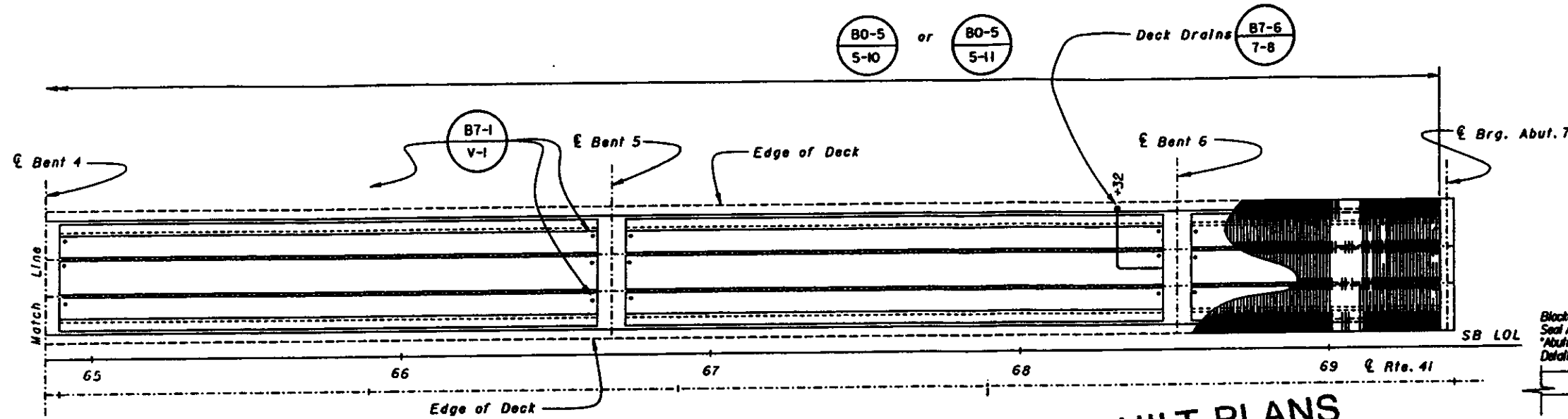
DSL	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	41,99	REO.7/ R22.1, 19.2/19.8	287	368	

REGISTERED ENGINEER - CIVIL

1-22-96

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN 8	BRIDGE NO.	ROUTE 41/99 SEPARATION	
DETAILS	BY Stanley Ku	CHECKED Duc Trinh			42-266R/L	GIRDER LAYOUT NO. 4	
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh			POST MILE		
			CU 0807 EA 342601		REVISION DATES	DATE	BY
					17	29	

# AS BUILT PLANS

Contract No. 06-342604  
 Contractor BANCO  
 Resident Engineer L. WICKINBOTHAM  
 Date of Completion 11/97  
BY DAVID L. VALDES  
NO CHANGES

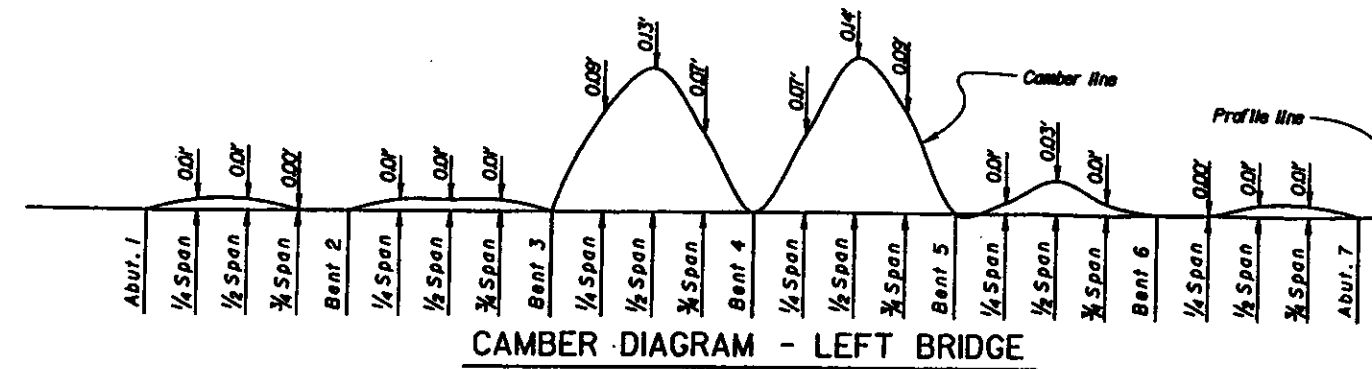
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fresno	41, 99	R20.1/R22.1, 19.2/19.8	266	368

REGISTERED ENGINEER - CIVIL  
 STANLEY RU  
 No. 4198  
 Exp. 12-31-96  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE: 1-22-96

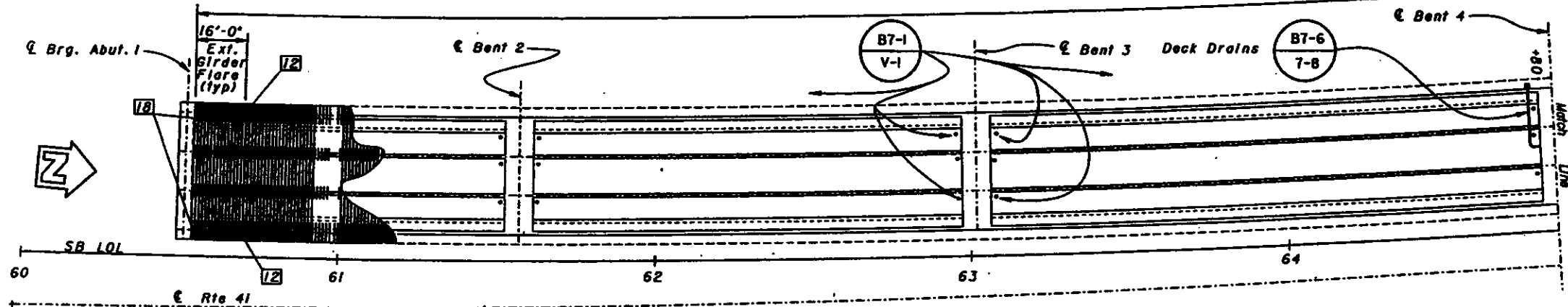
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Note: For details not shown, see B8-5

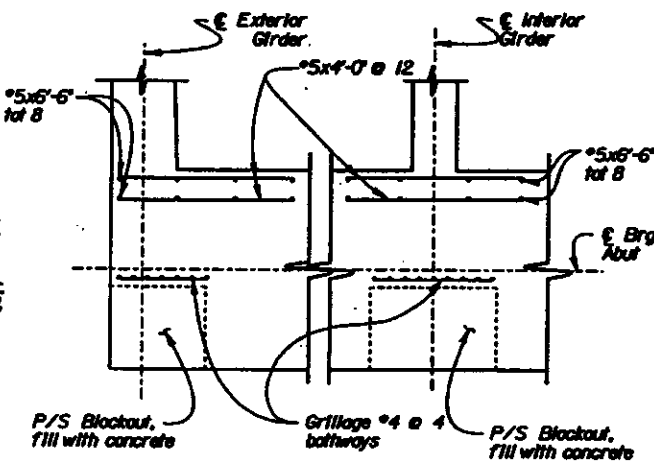


Indicates girder stem width in inches

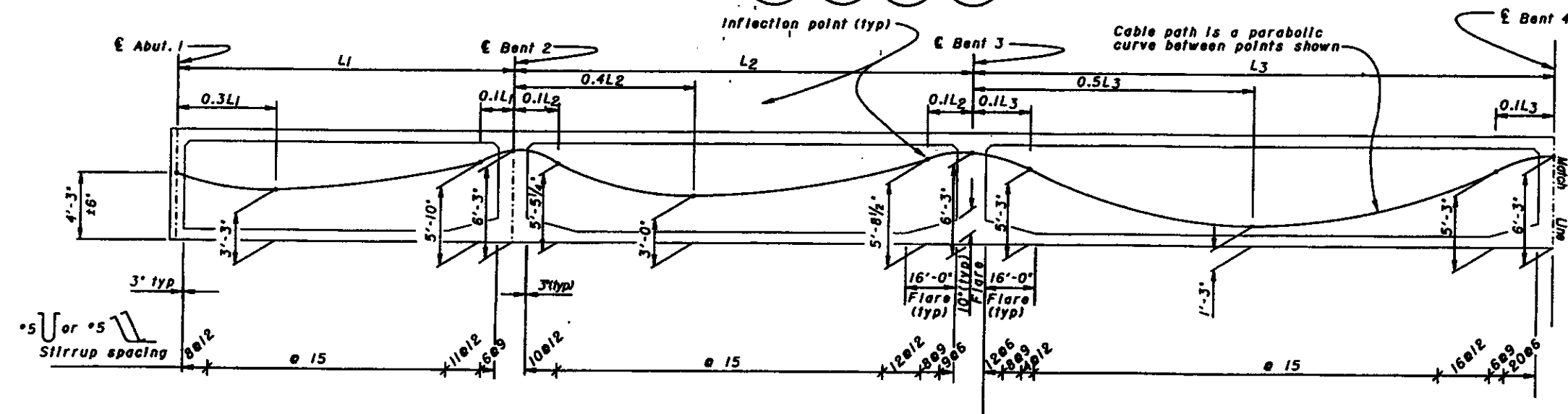
B0-5 5-10 or B0-5 5-11



GIRDER LAYOUT  
 1" = 20'



PRESTRESS BLOCKOUT DETAIL  
 1/2" = 1'-0"



LONGITUDINAL SECTION - LEFT BRIDGE  
 No Scale

**PRESTRESSING NOTES**  
 270 KSI Low Relaxation Strands:  
 $P_{jack} = 8770$  kips  
 Anchor Set =  $\frac{3}{8}$  in  
 Total Number of Girders = 4  
 Distribution of prestress force ( $P_{jack}$ ) between girders shall not exceed the ratio of 3:2.  
 Maximum final force variation between girders shall not exceed 725 kips.  
 Concrete:  $f'_c = 4000$  psi @ 28 days  
 $f'_d = 3500$  psi @ time of stressing  
 Contractor shall submit elongation calculations based on initial stress at  
 $\epsilon = 0.824$  times jacking stress.  
 Stressing shall be performed from both ends.

DESIGN	BY Stanley Ru	CHECKED Duc Trinh	STATE OF CALIFORNIA	DIVISION OF STRUCTURES	BRIDGE NO. 42-266A/L	ROUTE 41/99 SEPARATION
DETAILS	BY <u>Stanley Ru</u> 07-95	CHECKED Duc Trinh	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN 8	POST MILE R22.1	GIRDER LAYOUT NO. 3
QUANTITIES	BY Stanley Ru	CHECKED Duc Trinh		CU 0607 EA 342601		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

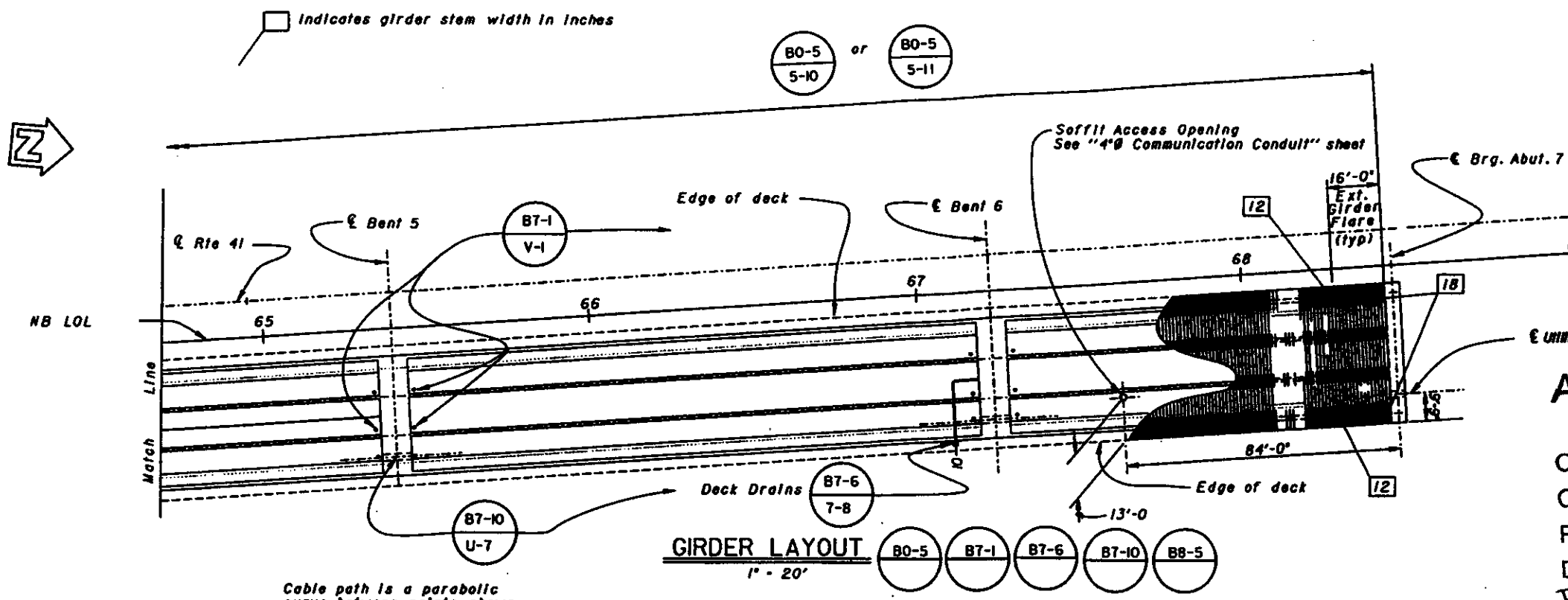
DATE: 11/97

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	4199	R20.7/R22.1, 19.2/19.8	265	368

REGISTERED ENGINEER - CIVIL	STANLEY KU
1-22-96	PLANS APPROVAL DATE

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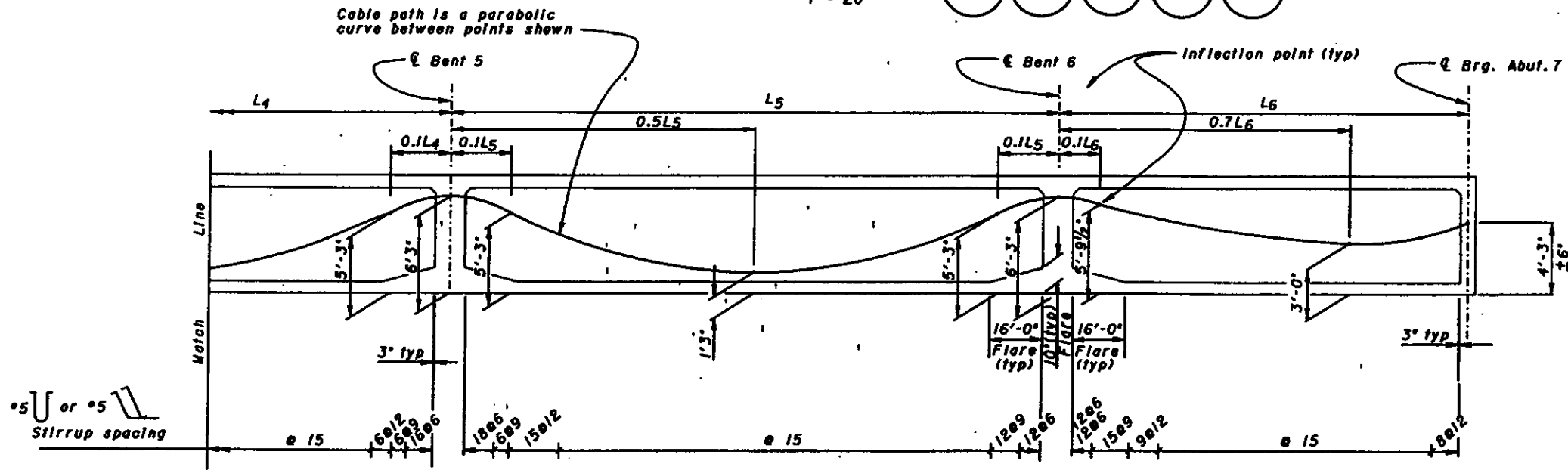


# AS BUILT PLANS

Contract No. 06-342604  
 Contractor BENCO/HA  
 Resident Engineer L. HICKINBOTHAM  
 Date of Completion 11/97  
 BY DAVID L. VALLEJO  
 No CHANGES

## PRESTRESSING NOTES

270 KSI Low Relaxation Strands  
 $P_{jock} = 8660$  kips  
 Anchor Set =  $\frac{3}{8}$  in  
 Total Number of Girders = 4  
 Distribution of prestress force ( $P_{jock}$ ) between girders shall not exceed the ratio of 3:2.  
 Maximum final force variation between girders shall not exceed 725 kips.  
 Concrete:  $f'_c = 4000$  psi at 28 days  
 $f'_a = 3500$  psi at time of stressing  
 Contractor shall submit elongation calculations based on initial stress at  
 $\epsilon = 0.834$  times jacking stress.  
 Stressing shall be performed from both ends.



LONGITUDINAL SECTION - RIGHT BRIDGE  
 No Scale

DESIGN BY Stanley Ku	CHECKED Duong Trith	STATE OF CALIFORNIA	DIVISION OF STRUCTURES	BRIDGE NO. 42-2687/L	ROUTE 41/99 SEPARATION
DETAILS BY Stanley Ku	CHECKED Duong Trith	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN 8	POST MILE R22.1	GIRDER LAYOUT NO. 2
QUANTITIES BY Stanley Ku	CHECKED Duong Trith	CU 0807 EA 342601			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

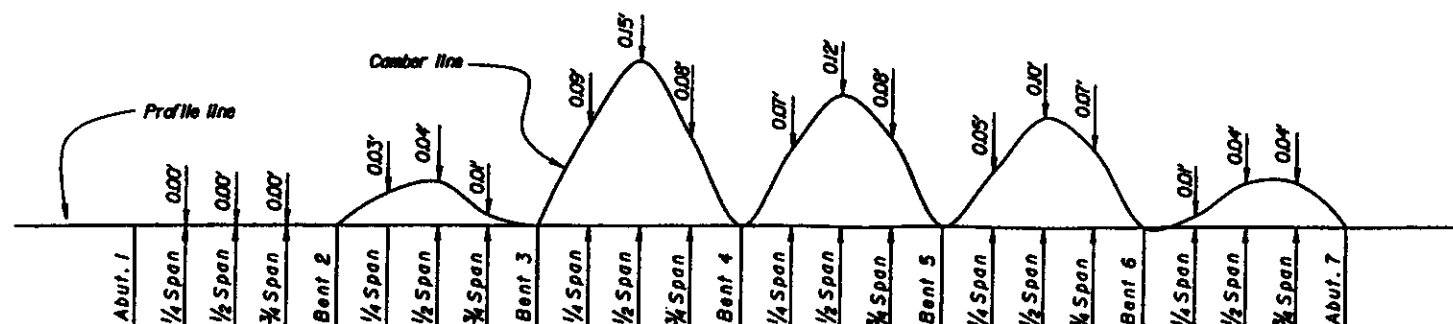
REVISION DATES	BY	DATE	REASON
15		29	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	41,99	R20.77/R22.1, 19.2/19.8	284	368

REGISTERED ENGINEER - CIVIL	STAMP BY 1728 R-2-25 CIVIL
1-22-96	PLANS APPROVAL DATE

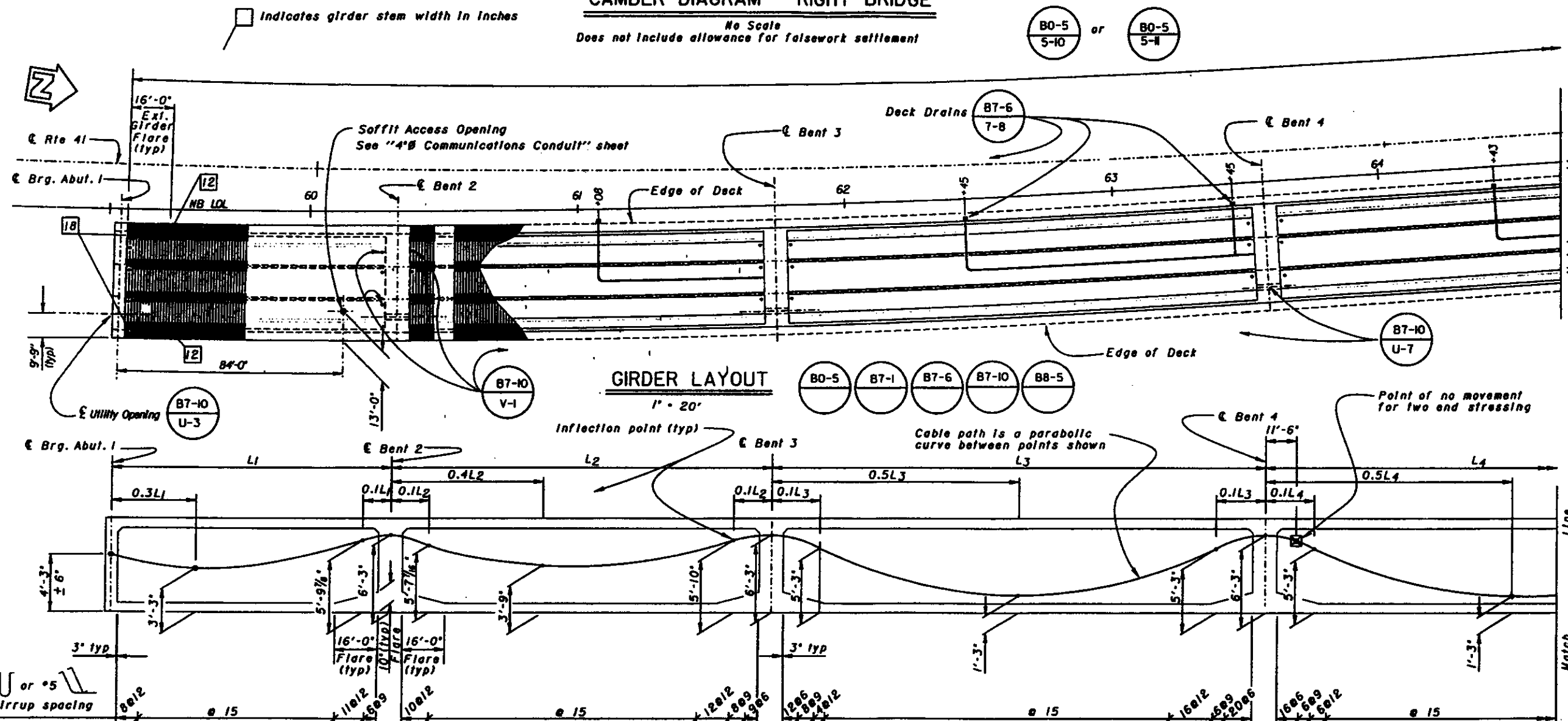
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



### CAMBER DIAGRAM - RIGHT BRIDGE

No Scale  
Does not include allowance for falsework settlement

B0-5  
5-10 or B0-5  
5-11



Contract No. 06-342604  
Contractor Benico  
Resident Engineer L. Hickman  
Date of Completion 11/97  
By David L. Valdes  
No changes

## AS BUILT PLANS

DESIGN	BY Stanley Ku	CHECKED Dug Irish
DETAILS	BY Stanley Ku	CHECKED Dug Irish
QUANTITIES	BY Stanley Ku	CHECKED Dug Irish

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES  
STRUCTURE DESIGN 8

PROJECT NO.  
42-268/L  
POST MILE  
R22.1

ROUTE 41/99 SEPARATION  
GIRDER LAYOUT NO. 1

06 000 300 000 3/1/98

ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

CU 0807  
EA 342604

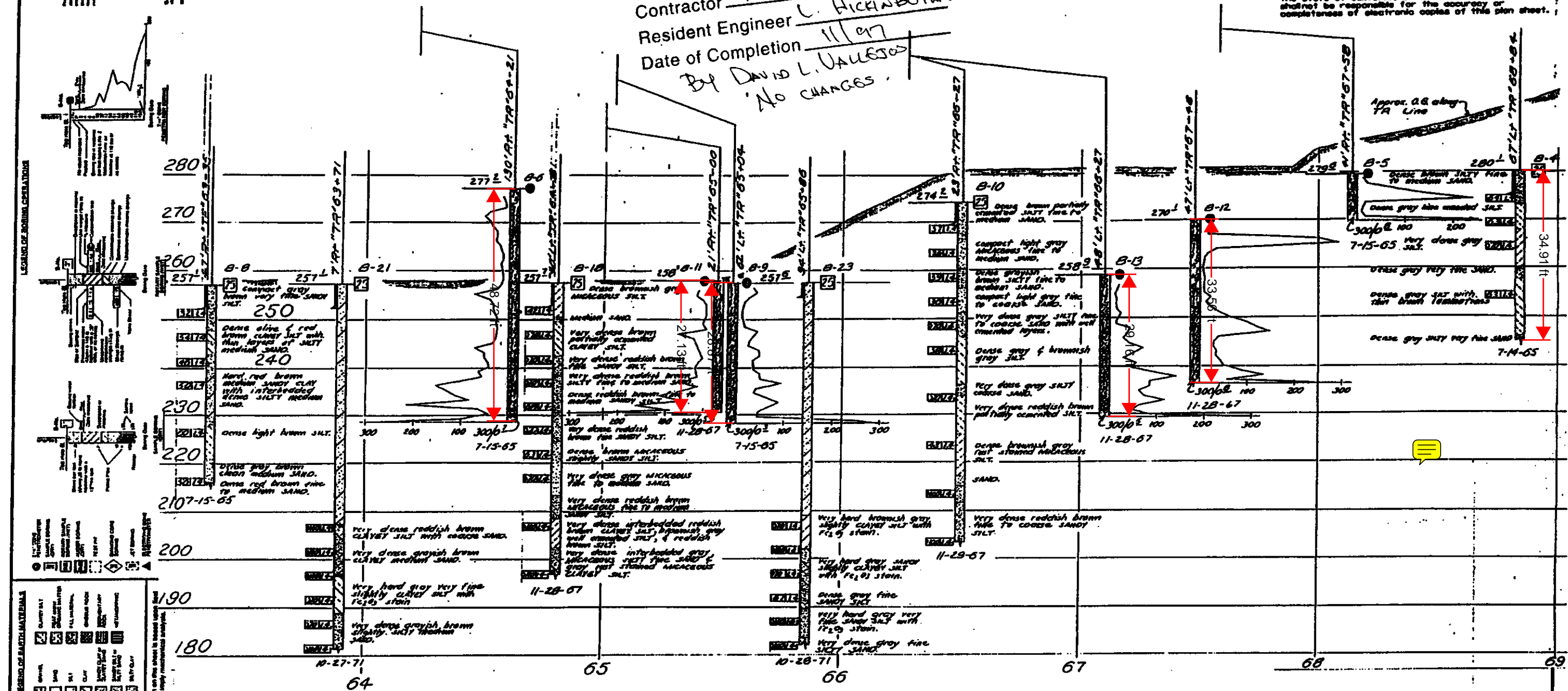
REVISIONS PRINTS BEARING  
EARLIER REVISION DATES

REVISION DATES PRELIMINARY STATE 05/17  
PLAN SHEET 14 OF 29



# AS BUILT PLANS

Contract No. 06-342604  
 Contractor BGO CO  
 Resident Engineer L. HICKINBOTTOM  
 Date of Completion 11/97  
By DAVID L. VALLEJO  
No CHANGES



PROFILE  
 Scale: Horz. 1" = 20'  
 Vert. 1" = 10'

LEGEND OF EARTH MATERIALS	
	Sand
	Silt
	Clay
	Gravel
	Very Fine Sand
	Fine Sand
	Medium Sand
	Coarse Sand
	Very Fine Silt
	Fine Silt
	Medium Silt
	Coarse Silt
	Very Fine Clay
	Fine Clay
	Medium Clay
	Coarse Clay

ENGINEERING SERVICE CENTER		STRUCTURE FOUNDATIONS		FIELD INVESTIGATION BY:		State of CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES		ROUTE 41/99 SEPARATION	
DRAWN BY		CHECKED BY						STRUCTURE DESIGN		LOG OF TEST BORINGS 4 OF 4	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fra	41,99	R207/R224, 19.2/19.8	276	366

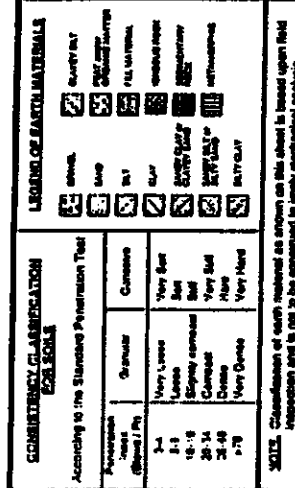
*[Signature]*

REGISTERED ENGINEERING GEOLOGIST

**I-22-96**

BE AND APPROVE: DATE

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ENGINEERING SERVICE CENTER		STRUCTURE FOUNDATIONS		FIELD INVESTIGATION BY:		State of CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES STRUCTURE DESIGN		BORING NO. 42-200 R/L POST MILE 122.1		ROUTE 41/99 SEPARATION.		3 OF 4	
DRAWN BY															
CHECKED BY															

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS →
 

0
1
2
3

CU: 08107  
EA: 342001

UNDERLAP POINTS BEARING  
 FASLER REVERSE DATES →

REVERSE DATES (FIELD-BORING STAGE ONLY)		SHEET	OF
		28	29



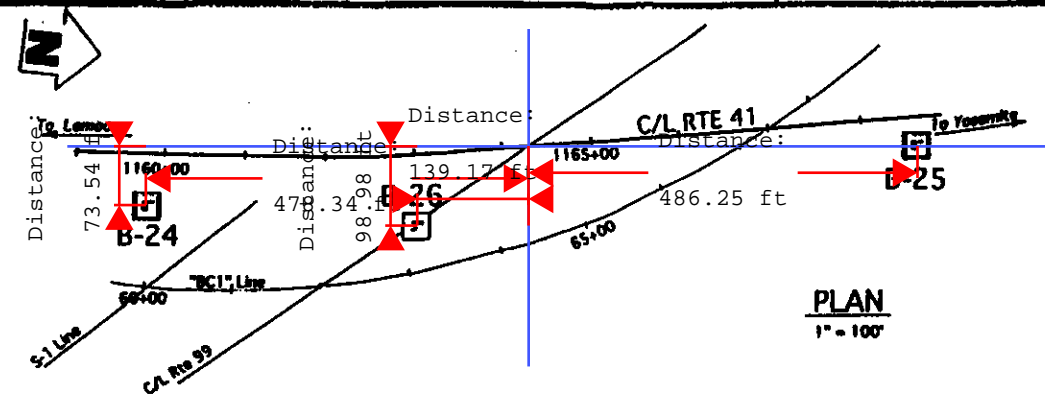


DIST.	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
06	Fre	41, 99	TOTAL PROJECT REQ. 77/122.1 19.2/198	276	368
REGISTERED PROFESSIONAL ENGINEER			J. L. BOWMAN No. 937-96 EXPIRATION DATE 1-22-98 PLANS APPROVAL DATE		

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

**BENCH MARK**

B-24 FID 114 19  
TK NAIL @ W. END BR. NO. 42-215 @ BELGRAVIA AVE & HWY 99  
R-25 FID 94145-101  
1" @ TOP OF FILL 30' W CONTROL POINT 92130-112  
B-26  
ELEVATION ESTIMATED FROM SITE PLAN



**PLAN**  
1" = 100'

BORING B-24		BORING B-25	
280	272.2	300	
270		290	
260		280	
250		270	
240		260	
230		250	
220		240	
210		230	
200		220	
190		210	
180		200	
170		190	
160		180	
1159+00	1161+50	1164+00	1166+50

**AS BUILT PLANS**  
06-342604

Contract No. B-24  
Contractor L. HICKINBOTHAM  
Resident Engineer 11/97  
Date of Completion VALGJOS  
BY DAVID  
No changes.

**PROFILE**  
HOR. 1" = 40'  
VER. 1" = 10'

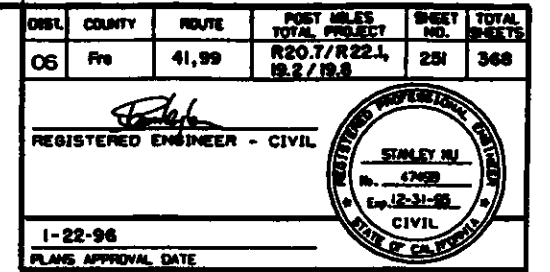
ENGINEERING SERVICE CENTER		STRUCTURE FOUNDATIONS		FIELD INVESTIGATION BY: J. BOWMAN & D. THOMAS	State of CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN	ROUTE 41/99 SEPARATION LOG OF TEST BORINGS 1 OF 4	
DRAWN BY	2-1-98	9-95			CL: 00107 EA: 342001			
CHECKED BY								

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS →

REVISION DATES (PRELIMINARY DATES ONLY)

SHEET 28 OF 29





DESIGN <i>Brain How</i> DESIGN ENGINEER	DESIGN BY	Stanley Ku	CHECKED BY	Duc Trinh	LOAD FACTOR	LIVE LOADING: HS20-44 AND ALTERNATIVE 200 KIP DESIGN LOAD		STATE OF <b>CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN <b>8</b>	BRIDGE NO.	ROUTE 41/99 SEPARATION				
	DETAILS BY	Norm Kelley	CHECKED BY	Duc Trinh	LAYOUT BY	Stanley Ku	CHECKED BY			Duc Trinh	AZ-266 R/L	POST MILE			
	QUANTITIES BY	Stanley Ku	CHECKED BY	Duc Trinh	SPECIFICATIONS BY	<i>Ng H. Pham</i>	CHECKED BY			<i>Ng H. Pham</i>	R22.1	GENERAL PLAN			
					GENERAL SCALE IN INCHES FOR REDUCED PLANS			CU 05107 EA 342601	STANDARD PRINTS BEARING EARTHEN REVISION MARKS	REVISIONS SHEET NO. 1 OF 1 DATE 1/29/99					

By David L. Vallejos

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fres	41,99	R20.7/R22.1, R22.1/R23.0	270	368

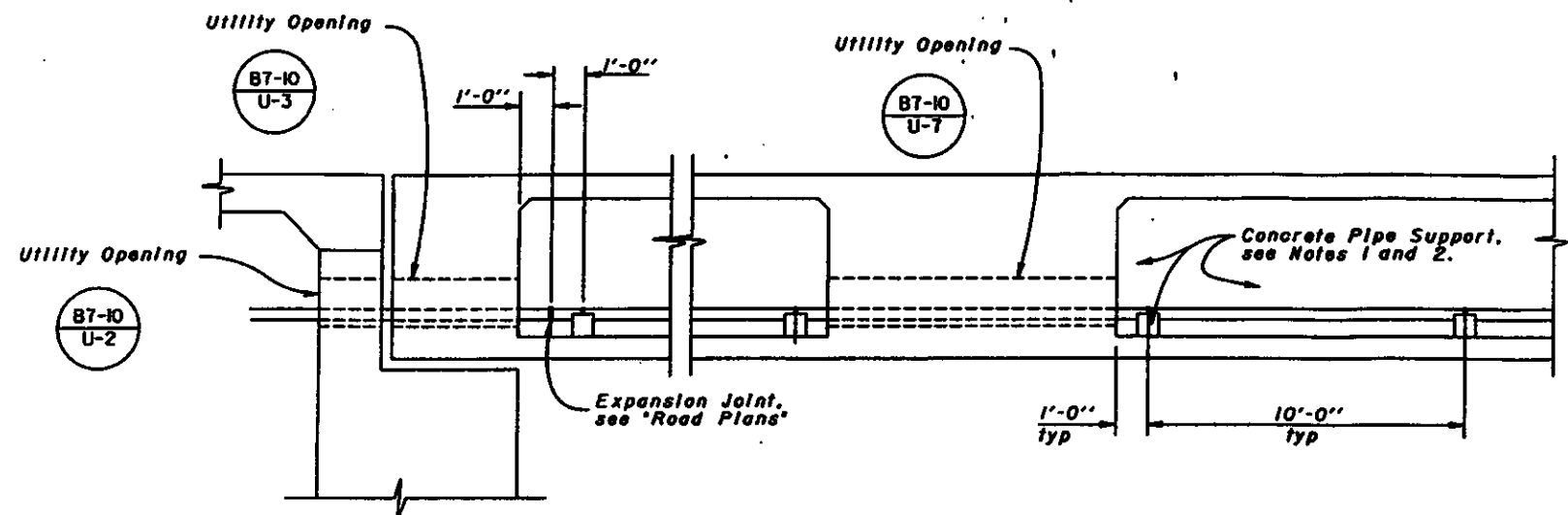
  

REGISTERED ENGINEER - CIVIL	STANLEY KU
PLANS APPROVAL DATE	1-22-98

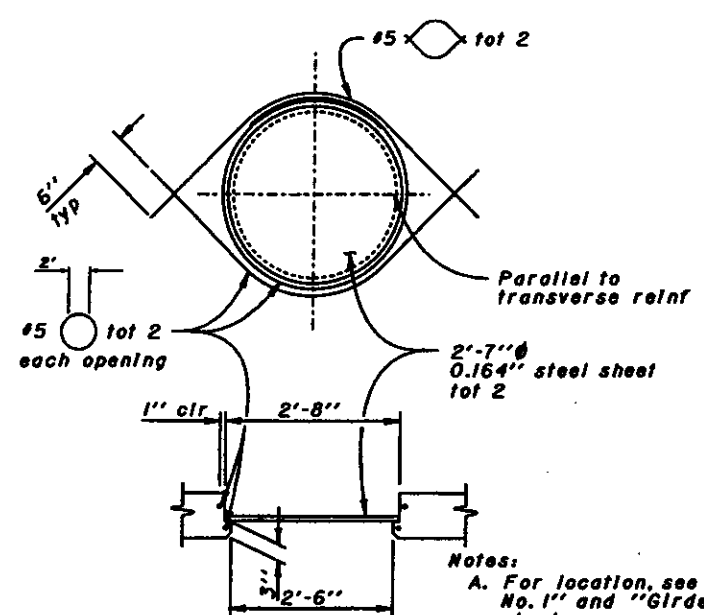
# AS BUILT PLANS

Contract No. 06-342604  
 Contractor BENZ  
 Resident Engineer L. WICKENBOTHAM  
 Date of Completion 11/97  
 BY DAVID L. VALLEJOS  
 NO CHANGES

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

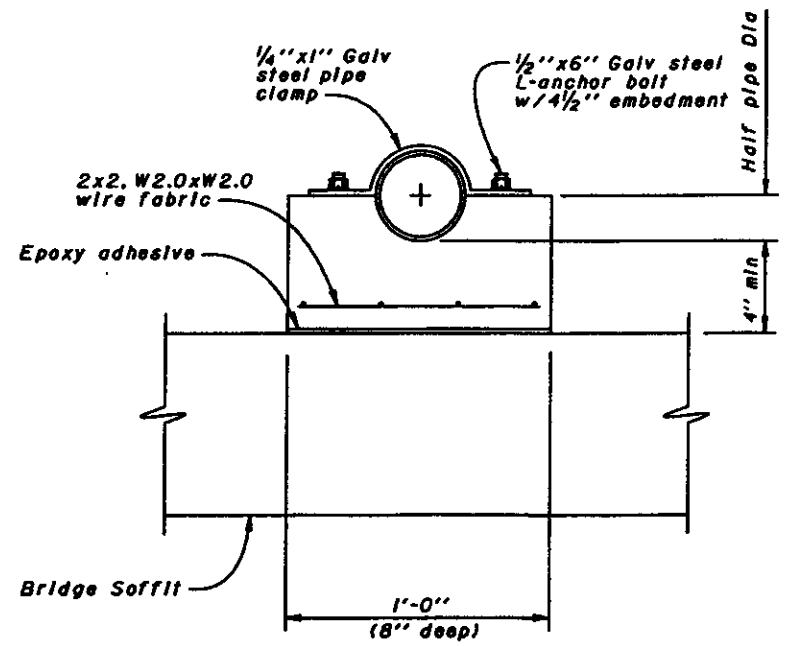


**INSTALLATION**  
 No Scale

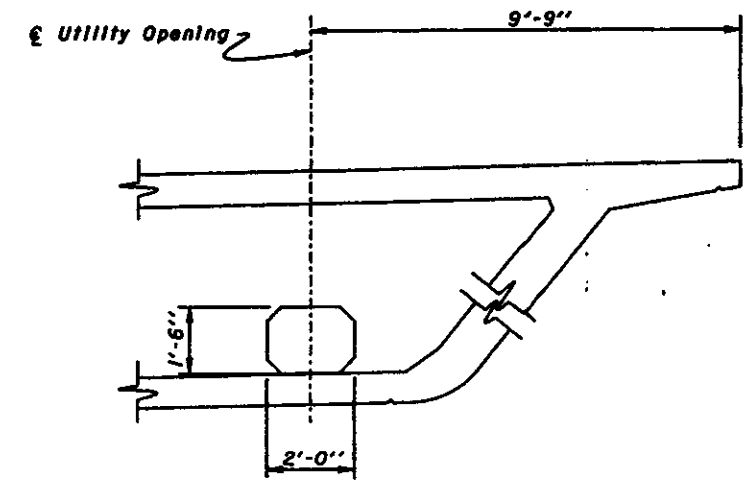


**SOFFIT ACCESS OPENING**  
 3/4" - 1'-0"

- Notes:  
 A. For location, see "Girder Layout No. 1" and "Girder Layout No. 2" sheets.  
 B. Adjust reinforcement to clear opening.  
 C. Plate must be installed before top deck is placed.



**CONCRETE PIPE SUPPORT**  
 3" - 1'-0"



**UTILITY OPENING LOCATION**  
 1/2" - 1'-0"

- Notes:  
 1. Pipe clamp shall be shimmed with steel washer plate to provide 1/4" clearance between pipe and clamp.  
 2. Maximum spacing between pipe supports shall be 10' unless otherwise detailed on the plans.  
 3. For details not shown, see "Road Plans".

DESIGN	BY Stanley Ku	CHECKED Duc Trinh	STATE OF CALIFORNIA	DIVISION OF STRUCTURES	SPRINKLER NO. 42-266 R/L	ROUTE 41/99 SEPARATION
DETAILS	BY David Forbes	CHECKED Duc Trinh	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN 8	POST MILE R22.1	4" Ø COMMUNICATION CONDUIT
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh				

CU 0801	EA 342604	REVISION DATES (PRELIMINARY STAGE ONLY)	PLAN SHEET NO.	OF
		0-12-98	20	29



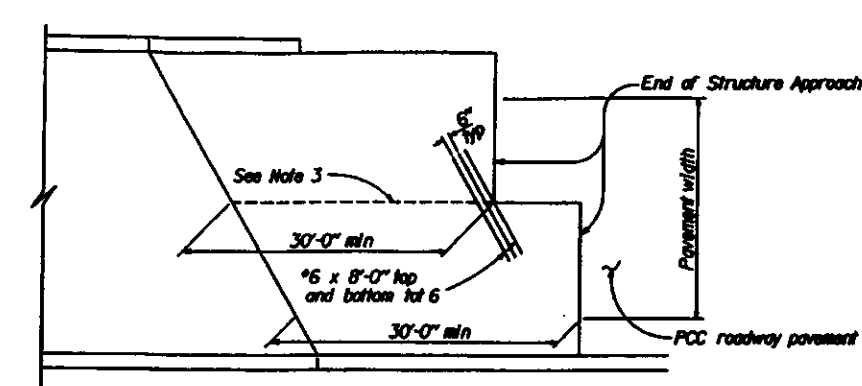
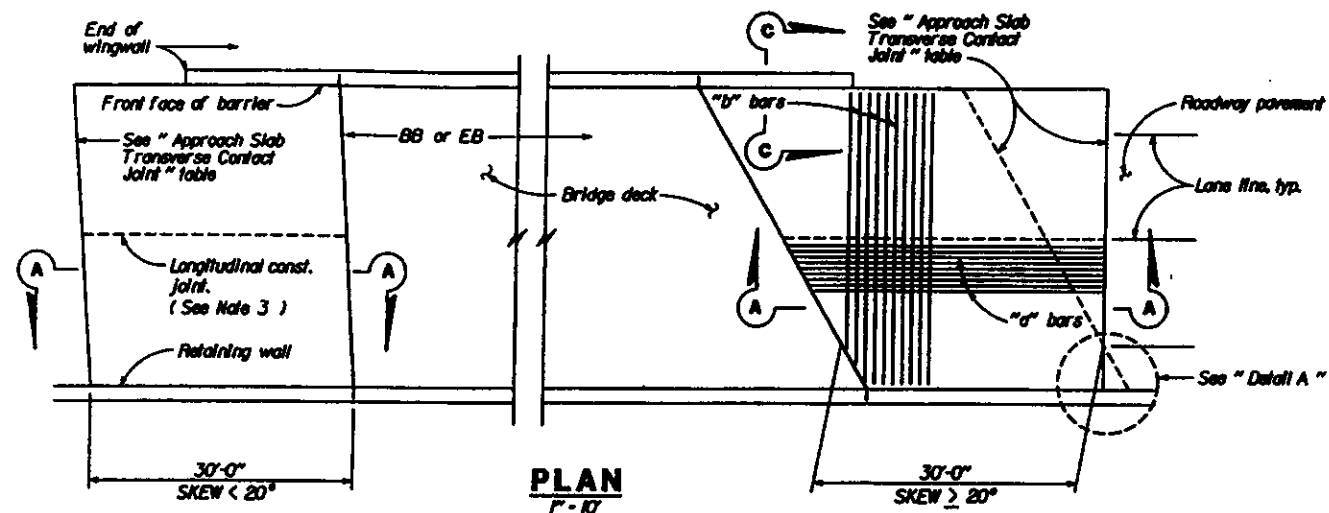


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	41, 99	R20.7/R22.1 19.2/19.8	273	368

REGISTERED ENGINEER - CIVIL

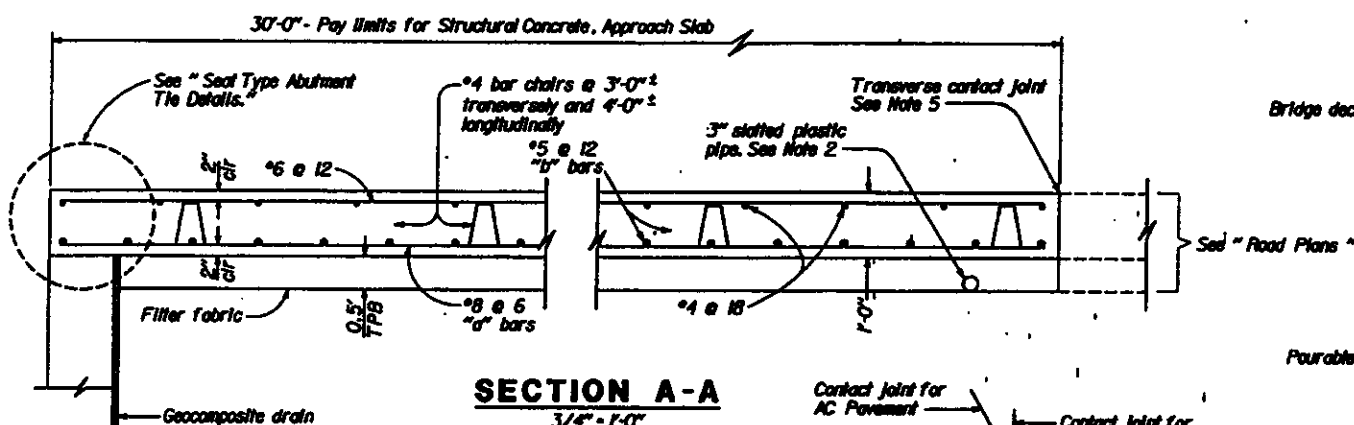
1-22-96  
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



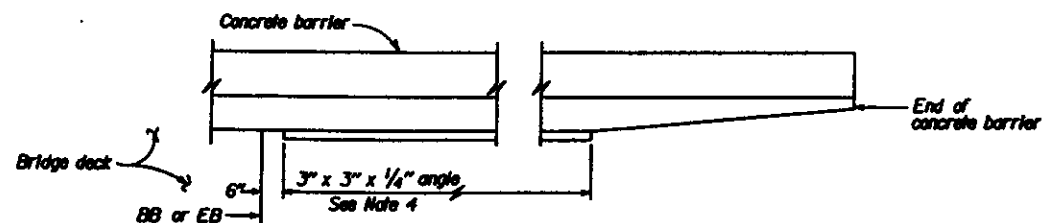
STRUCTURE APPROACH - END STAGGER DETAIL

NO SCALE



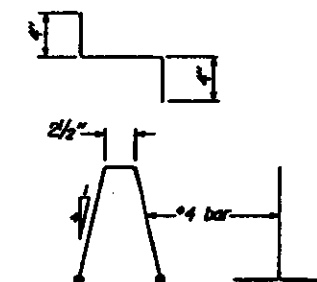
SECTION A-A

3/4" x 1'-0"



EDGE ANGLE DETAIL

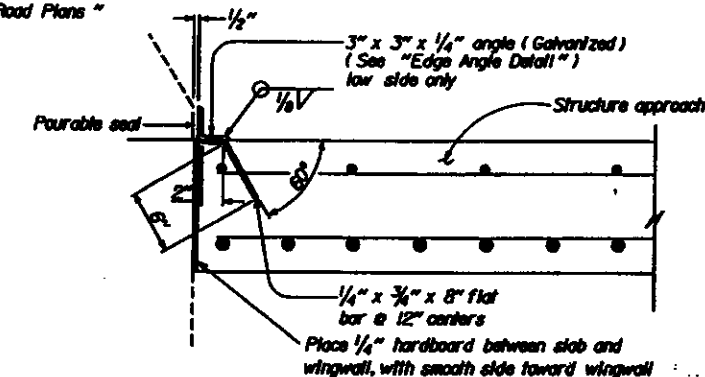
1/2" x 1'-0"



BAR CHAIR DETAIL

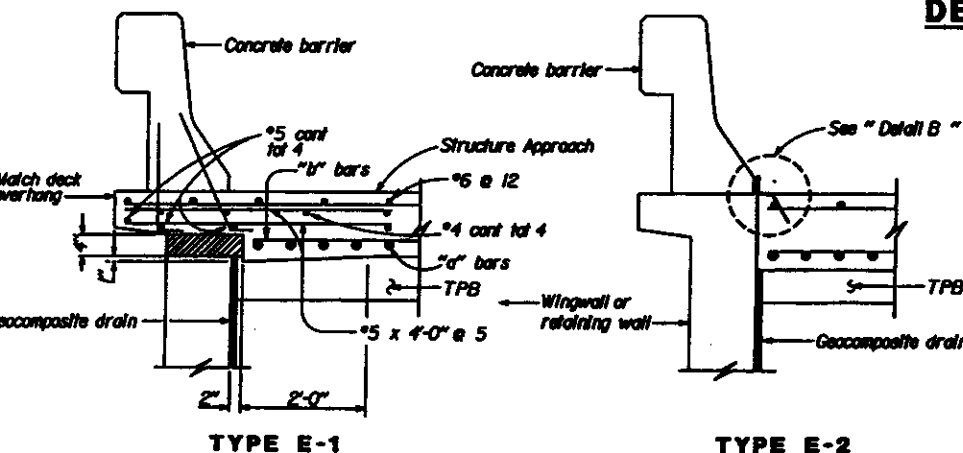
1/2" x 1'-0"

APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20° - 45°	Parallel to face of P II use (Detail A)	Stagger lines 24" to 36" apart.
> 45°	Parallel to face of P II use (Detail A)	Stagger of each lane line.



DETAIL B

1/2" x 1'-0"



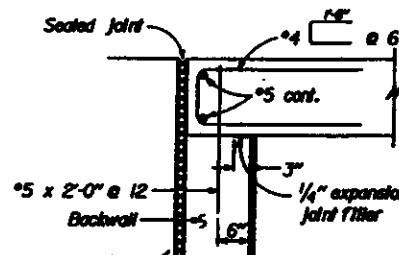
SECTION C-C

3/4" x 1'-0"

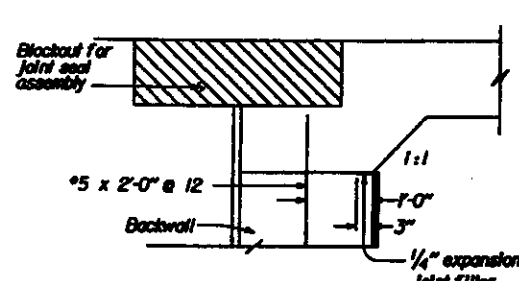
(Type E-1 to be used, unless otherwise shown on plans.)

DETAIL A

NO SCALE



MR ≤ 2"



MR > 2"

SEAT TYPE ABUTMENT TIE DETAILS (SEE NOTE 1)

3/4" x 1'-0"

NOTES:

1. For MR ≤ 2", adjust bar reinforcement to clear a sawcut for sealed joint, when required. For MR > 2", see "Abutment Joint Seal Details" for reinforcement.
2. For drainage details, see "Structure Approach Drainage Details" sheet.
3. Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
4. End angle of beginning of barrier transition, end of wingwall or end of structure approach, as applicable.
5. For transverse contact joint with new PCC paving, refer to Standard Plan A35-A.
6. At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along & roadway.

Remove all polystyrene.

SPECIAL DETAILS

STANDARD DRAWING				STATE OF CALIFORNIA		DIVISION OF STRUCTURES		BRIDGE NO.		ROUTE 41/99 SEPARATION	
FILE NO. X8 22-18	DESIGN BY M. Traffalis	CHECKED E. Thorkildsen	APPROVED BY	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN	42-200R/L	POST MILE	R22.1	STRUCTURE APPROACH TYPE N(30S)		
DESIGN DATE	REVISION	BY R. Yoo	CHECKED E. Thorkildsen								
		SUBMITTED BY M. Ho									
DS OSD 247A (CADD 4/89)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 0607 EA 342501		DISCARD PRINTS BEARING EARLIER REVISION DATES		SHEET 23 OF 29	

AS BUILT PLANS

BY David C. Baues

Contract No. 06-342604  
Contractor B&C Co  
Resident Engineer 11/97  
Date of Completion 11/97  
No CHANGES



# AS BUILT PLANS

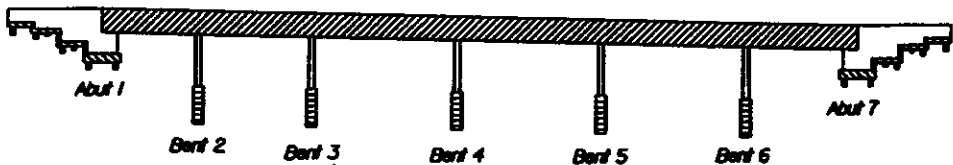
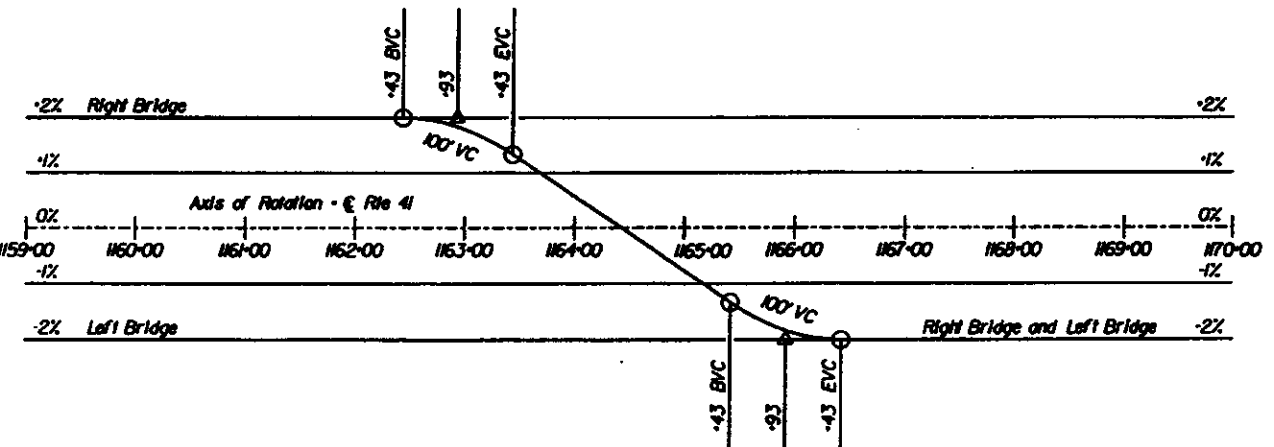
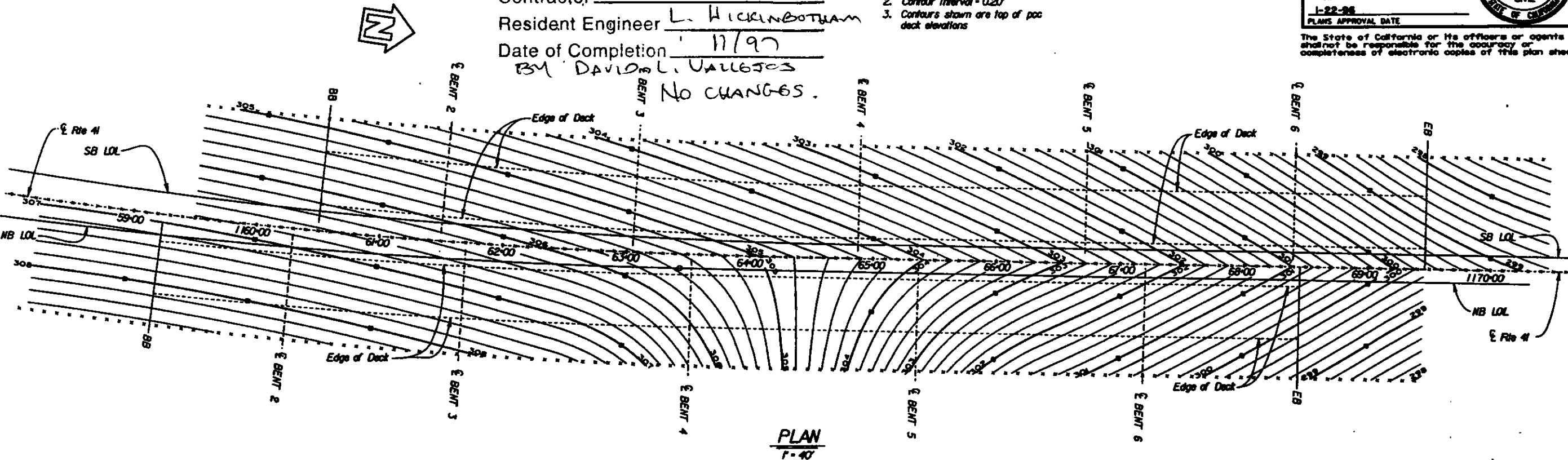
Contract No. 06-342604  
Contractor BGR  
Resident Engineer L. HICKINBOOTHAM  
Date of Completion 11/97  
BY DAVID L. VALLERES  
NO CHANGES.

## NOTES:

- Indicates overfoot contour.
- 10' Intervals along station line.
- Contours do not include camber.
- Contour Interval = 0.20'
- Contours shown are top of pcc deck elevations

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fresno	41, 99	R20.7/R22.1, R2.2/R2.9	253	368
REGISTERED ENGINEER - CIVIL					
1-22-98					
PLANS APPROVAL DATE					

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



- Structural Concrete, Bridge
- Structural Concrete, Bridge Footing
- Structural Concrete, Bridge (4,000 psi at 28 days)
- CIDH Concrete Piles (3,500 psi at 28 days)

## CONCRETE STRENGTH AND TYPE LIMITS

NO SCALE

## SUPERELEVATION

No Scale

DESIGN	BY Stanley Ku	CHECKED DUC Trinh	STATE OF CALIFORNIA	DIVISION OF STRUCTURES	BRIDGE NO. 42-266 R/L	ROUTE 41/99 SEPARATION
DETAILS	BY JFCosentino	CHECKED DUC Trinh	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN 8	POST MILE R22J	DECK CONTOURS
QUANTITIES	BY Stanley Ku	CHECKED DUC Trinh				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				CU 0607 EA 342601	DESIGNED PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (FOLLOWING STAGE ONLY)
						3 29

		SOLE PLATE			INTERMEDIATE PLATE				MASONRY PLATE			BEARING PAD		
LOCATION		Ls (in.)	Ws (in.)	Ts (in.)	U (in.)	Wl (in.)	Tl (in.)	Dl (in.)	Lm (in.)	Wm (in.)	Tm (in.)	Lb (in.)	Wb (in.)	Tb (in.)
Left Bridge	Abut 1	20	22	2	12	22	1 1/8	6 1/2	12	22	3/4	12	22	2
	Abut 7	20	22	2	12	22	1 1/8	6 1/2	12	22	3/4	12	22	2
Right Bridge	Abut 1	22	22	2	12	22	1 1/8	7	12	22	3/4	12	22	2
	Abut 7	22	22	2	12	22	1 1/8	7	12	22	3/4	12	22	2

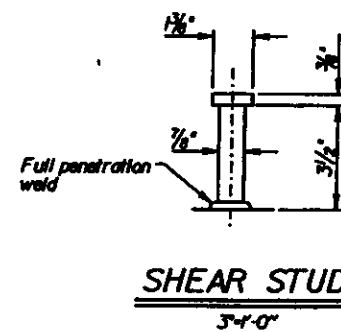
DESIGN VERTICAL LOAD ON PTFE BEARING PAD			
LOCATION		MAXIMUM	MINIMUM
Left Bridge	Abut 1	230 kips	169 kips
	Abut 7	214 kips	153 kips
Right Bridge	Abut 1	228 kips	167 kips
	Abut 7	253 kips	186 kips

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	41,99	R20.7/R22.1, 19.2/19.8	271	368

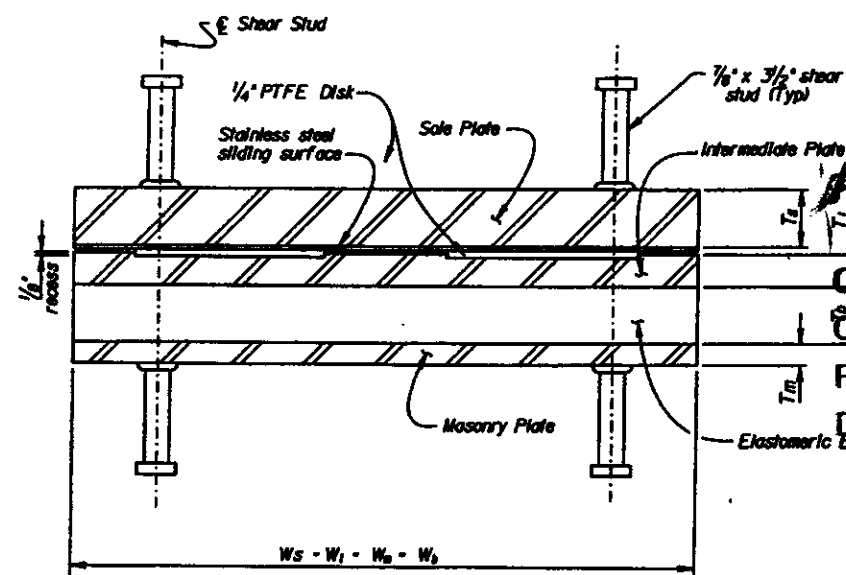
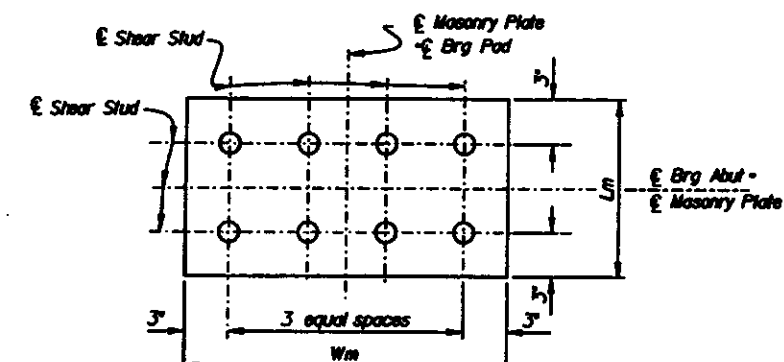
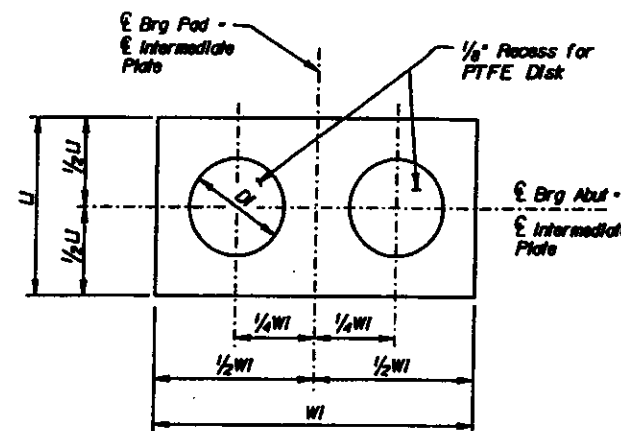
REGISTERED ENGINEER - CIVIL

1-22-96  
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

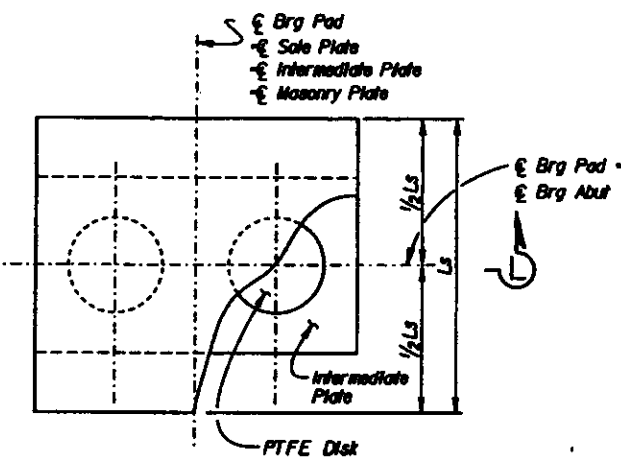
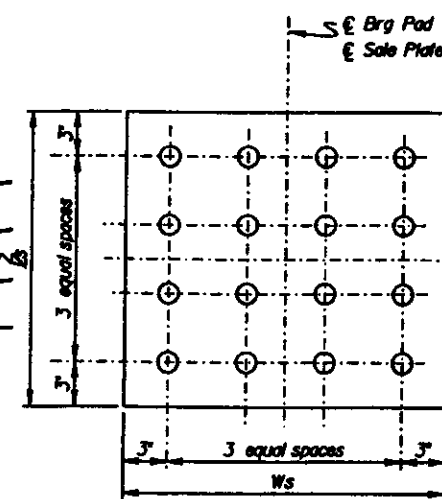


Note:  
Not all shear studs shown.



## AS BUILT PLANS

Contract No. 06-342604  
 Contractor BENCO  
 Resident Engineer L. HICKINGBOTHAM  
 Date of Completion 11/99  
 BY DAVID L. VAUGHAN  
 NO CHANGES



DESIGN	BY Stanley Ku	DATE 06/01/99	STATE OF CALIFORNIA DIVISION OF STRUCTURES STRUCTURE DESIGN 8	DESIGN NO.	42-266R/L	41/99 SEPARATION OVERCROSSING PTFE BEARING PAD
DETAILS	BY Roberto Lin	DATE 06/01/99		POST MILE	R22.1	
QUANTITIES	BY Stanley Ku	DATE 06/01/99		CU 06107 EA 342601		

REVISION DATES (PRELIMINARY STAGE ONLY)

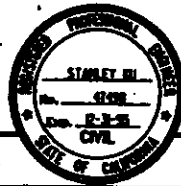
NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
-----	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fra	41,99	R20.77/R22.1, 19.2/19.8	288	308

REGISTERED ENGINEER - CIVIL

1-22-96

PLANS APPROVAL DATE



The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

- Notes:
1. All reinforcement #10 bars unless otherwise noted.
  2. Reinforcement shall be placed to clear deck drain.
  3. No lap splices allowed.
  4. Right bridge shown, left bridge similar.

\* TYP. LAYOUT OF COUPLERS AT ALL LOCATIONS.

- STAGGER ADJACENT COUPLERS AS SHOWN.

- NO COUPLERS AT G BENT

- ERICO LENGTH COUPLERS

### AS BUILT PLANS

Contract No. 06-342604

Contractor B&W CO

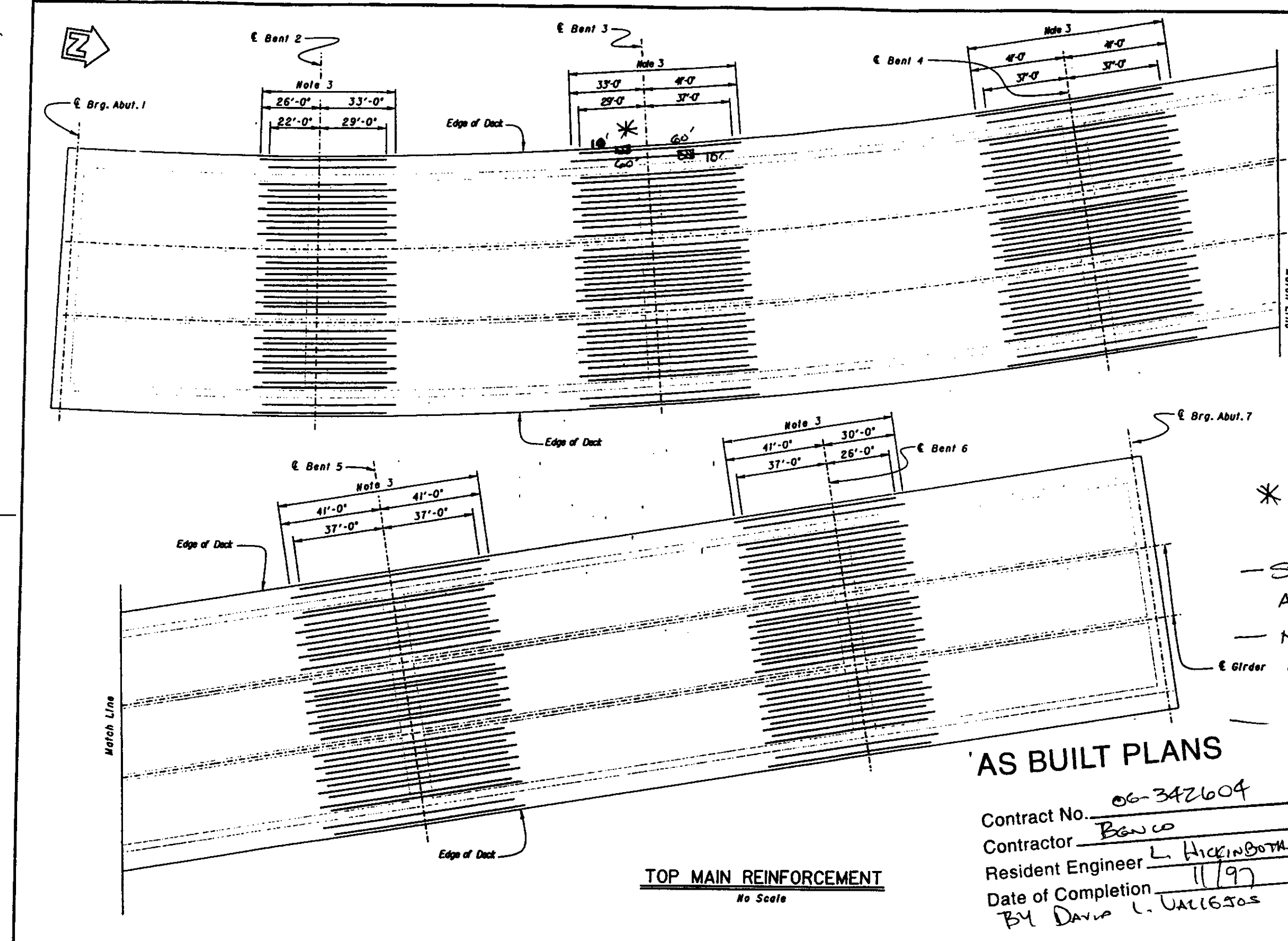
Resident Engineer L. HICKINGBOTHAM

Date of Completion 11/97

BY DAVID L. VALIGIOS

### TOP MAIN REINFORCEMENT

No Scale



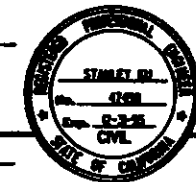
DESIGN	BY Stanley H.	CHECKED	Duc Trth	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN 8	BRIDGE NO.	ROUTE 41/99 SEPARATION GIRDER REINFORCEMENT NO. 1
DETAILS	BY Stanley H.	CHECKED	Duc Trth			42-266R/L	
QUANTITIES	BY Stanley H.	CHECKED	Duc Trth			POST MILE R22.1	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				CJ 0807 EA 342604	BRIDGE NO. PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	PLAN SHEET NO. 18 OF 29

USL	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fra	41, 99	R20.77/R22.1, R2.2/R2.8	288	388

REGISTERED ENGINEER - CIVIL

1-22-96

PLANS APPROVAL DATE



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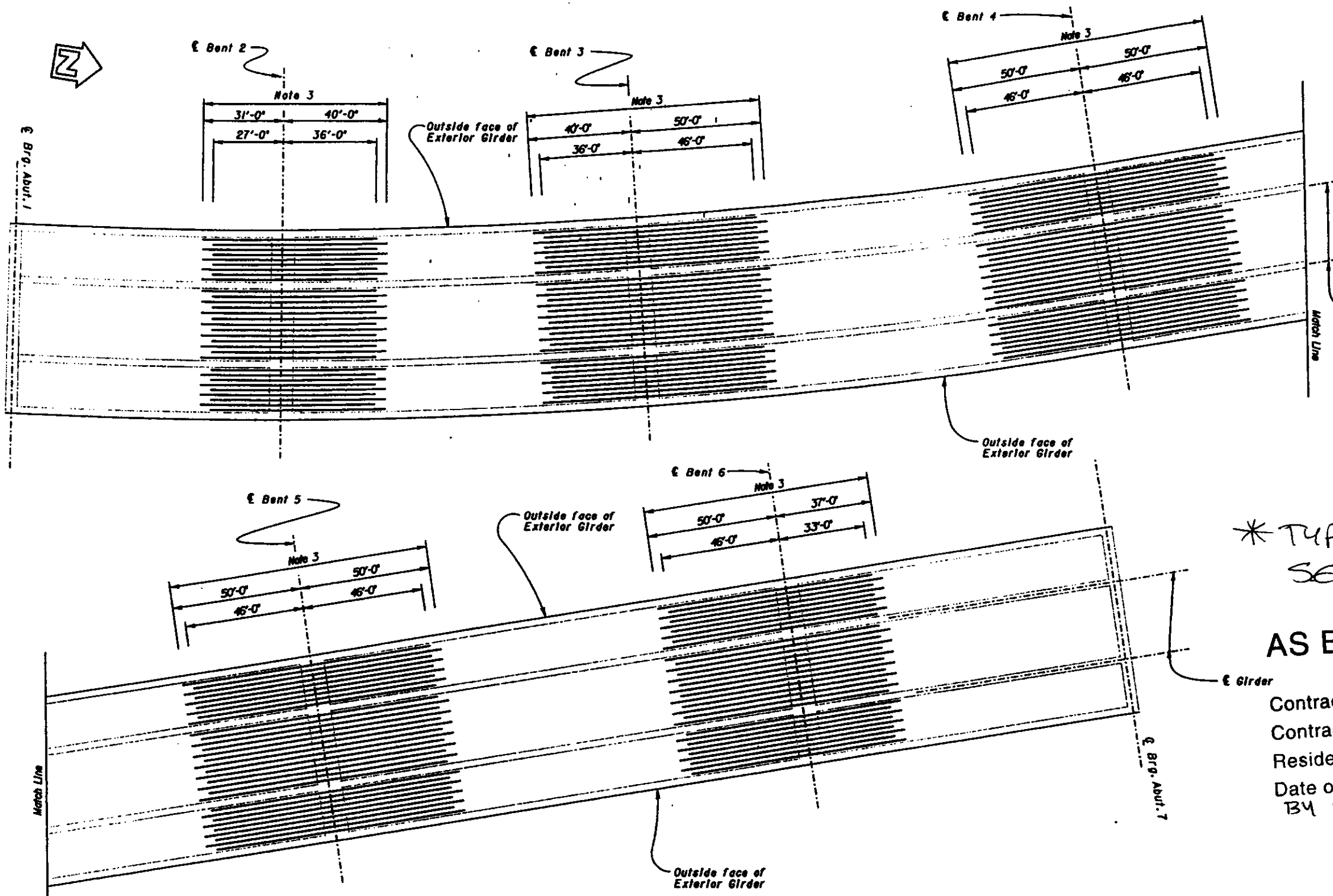
- Notes:
1. All reinforcement #10 bars unless otherwise noted.
  2. Reinforcement shall be placed to clear Deck Drain.
  3. No lap splices allowed.
  4. Right bridge shown, left bridge similar.

\* TYP. LAYOUT OF COUPLES, SEE SHEET 268.

### AS BUILT PLANS

Contract No. 06-342604  
 Contractor BENCO  
 Resident Engineer L. WICKINGHAM  
 Date of Completion 11/97  
 BY DAVID C. VALLEJO

14/04



### BOTTOM MAIN REINFORCEMENT

No Scale

DESIGN	Stanley Ku	CHECKED	Duc Trinh	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES STRUCTURE DESIGN 8	BRIDGE NO.	ROUTE 41/99 SEPARATION GIRDER REINFORCEMENT NO.2
DETAILS	Stanley Ku	CHECKED	Duc Trinh			42-2604/L	
QUANTITIES	Stanley Ku	CHECKED	Duc Trinh			POST MILE R22J	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				CU 0807 EA 342601	FORWARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (BY) (DATE) (REASON)	19 29



DIST.	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
06	Fre	41,99	R20.77/R22.1 19.2 / 19.8	275	368

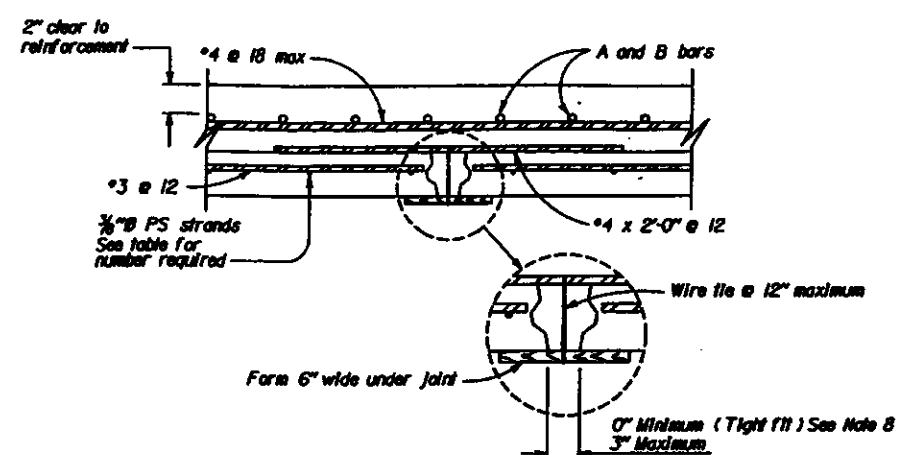
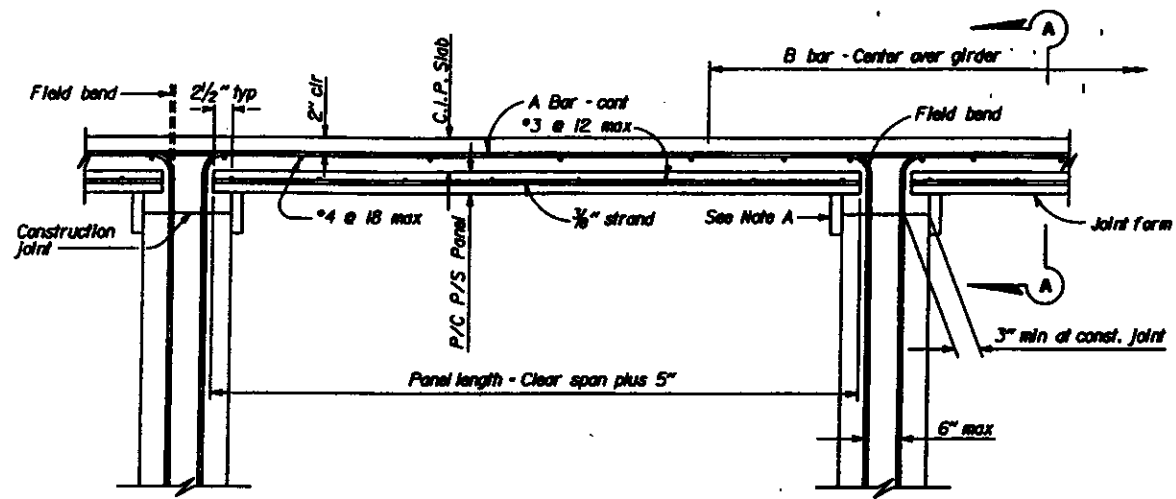
REGISTERED ENGINEER / CIVIL

STANLEY KU

1-22-96

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



SECTION A-A

NOTES:

1. The contractor shall submit for the Engineer's approval, layout and detail shop plans showing all dimensions, steel reinforcement, lifting loops, bar chairs, joint forms, 3/8" diameter prestressing strands and clearances. Details not shown on shop plans shall conform to the contract plans.
2. All pretensioned panels shall be placed perpendicular or radial to the longitudinal post-tensioned cast-in-place girders.
3. Ends of the panel shall be neatly sawed to provide 2 1/2" wide concrete bearing surface on the cast-in-place girders and caps. When panels are placed in variable width bays or trapezoidal and irregular corners, they shall be sawed to fit. Adjust reinforcing steel at caps to provide for the 2 1/2" bearing surface.
4. Cast-in-place bearing concrete thickness under the pretensioned panel ends shall be not less than 2" deep or more than 3" deep.
5. For use with cast-in-place post tensioned girders with 12" min. girder stems.
6. Finish on top of panels to be robed parallel to strands, 1/4" amplitude.
7. These details are alternative to those shown on the superstructure plans. Details not shown shall conform to those details.
8. If panels are tight fit, wire and tie forms are not required.

DESIGN NOTES:

LIVE LOADING:

HS20-44 and alternative and permit design load in accordance with 1983 AASHTO and all current interim specifications and revisions by Caltrans.

Design Includes 35 lbs. per square foot for future wearing surface.

CONCRETE STRENGTH:

Precast pretensioned panels:  $f'_c = 5000$  psi at 28 days  
 $f'_d = 4000$  psi at release

Cast-in-place deck slab:  $f'_c = 4000$  psi at 28 days, or as required on "prestressing notes" for superstructure concrete.

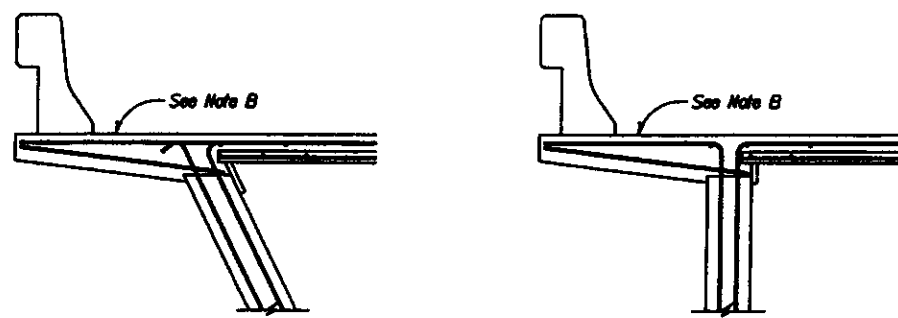
PRESTRESSING STEEL:

All strands shall be 3/8" diameter low relaxation steel strands with minimum ultimate strength  $f'_s = 270,000$  psi.

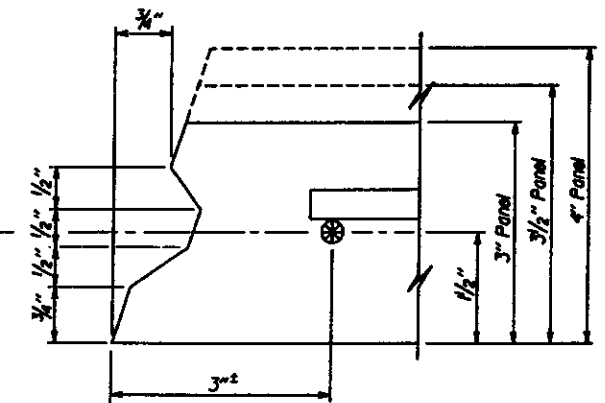
Initial jacking force per 3/8" strand = 16,800 pounds.

NOTE A - Support details for panels to be submitted to the engineer for review

NOTE B - See "Typical Section" on other detail sheets for reinforcing in the C.I.P. cantilever



C.G. of 3/8" strands for all panel thicknesses



EDGE DETAIL  
AS BUILT PLANS

Contract No. 06-342604

Contractor Banco

Resident Engineer L. HICKINGBOTHAM

By DAVID L. VALLEJO

- "B" bars to be placed in the deck slab. Spacing and size to be same as for "A" bars. At exterior girder cantilevers use reinforcing shown on detail sheets.
- The maximum size longitudinal bar between top of panel and "A" bars to provide 2" clearance at top of C.I.P. slab. If larger clearance is required for environmental reasons, thicken slab.

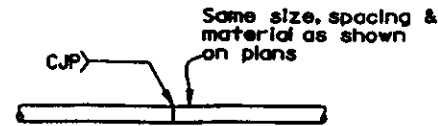
\*NOT USED ON THIS PROJECT

ALL PANELS				3" PANEL THICKNESS PANEL WT - 39"/SF					3 1/2" PANEL THICKNESS PANEL WT - 45"/SF								4" PANEL THICKNESS PANEL WT - 52"/SF					
SPAN OF GIRDER TO OF GIRDER	TOTAL SLAB THICKNESS ( IN )	"A" BARS IN TOP OF C.I.P. SLAB CONT.	"B" BARS IN TOP OF C.I.P. SLAB SHORT BARS	C.I.P. SLAB THICKNESS ( IN )		MIN. NO. OF 3/8" STRAND IN PANEL WIDTH			C.I.P. SLAB THICKNESS ( IN )	MIN. NO. OF 3/8" STRAND IN PANEL WIDTH			C.I.P. SLAB THICKNESS ( IN )	MIN. NO. OF 3/8" STRAND IN PANEL WIDTH								
				●		4	6	8		4	6	8		4	6	8						
6'-0"	7 1/2"	*5 @ 12	3'-10"	11	4 1/2"	6	9	12	C.I.P. SLAB THICKNESS ( IN )	MIN. NO. OF 3/8" STRAND IN PANEL WIDTH	4	6	8	C.I.P. SLAB THICKNESS ( IN )	4	6	8					
6'-6"	7 1/2"	*5 @ 12	4'-0"	11	4 1/2"	6	9	12														
7'-0"	7 1/2"	*5 @ 12	4'-4"	11	4 1/2"	6	9	12														
7'-6"	7 1/2"	*5 @ 12	4'-3"	11	4 1/2"	6	9	12														
8'-0"	7 3/4"	*5 @ 12	4'-5"	14	4 3/4"	6	9	12	10	4 1/4"	6	9	12	C.I.P. SLAB THICKNESS ( IN )	4	6	8					
8'-6"	7 3/4"	*5 @ 10	4'-7"	14	4 3/4"	7	10	14	10	4 1/4"	6	9	12									
9'-0"	8"	*5 @ 10	4'-9"	14	5"	8	12	16	11	4 1/2"	6	9	12									
9'-6"	8 1/8"	*5 @ 10	4'-10"	14	5 1/8"	9	13	17	14	4 5/8"	6	9	12									
10'-0"	8 3/8"	*5 @ 10	5'-0"	14	5 3/8"	10	15	20	14	4 5/8"	7	10	13	C.I.P. SLAB THICKNESS ( IN )	4	6	8					
10'-6"	8 1/2"	*5 @ 10	5'-2"	14	5 1/2"	11	16	22	14	5"	7	11	14									
11'-0"	8 5/8"	*6 @ 12	5'-4"						14	5 1/8"	8	12	15					14	4 5/8"	6	9	12
11'-6"	8 5/8"	*6 @ 12	5'-5"						14	5 3/8"	9	13	17					14	4 5/8"	7	10	13
12'-0"	9"	*6 @ 12	5'-7"						14	5 1/2"	10	14	18	14	5"	7	10	14				
12'-6"	9 1/8"	*6 @ 12	5'-9"						14	5 3/8"	10	15	20	14	5 1/8"	8	11	15				
13'-0"	9 1/4"	*6 @ 12	5'-11"						14	5 1/2"	11	17	22	14	5 3/8"	9	12	16				
13'-6"	9 1/2"	*6 @ 12	6'-1"						14	5 1/2"				14	5 3/8"	9	13	18				
14'-0"	9 3/4"	*6 @ 12	6'-3"						14	5 3/8"				14	5 3/8"	10	15	19				
14'-6"	9 3/4"	*6 @ 12	6'-4"						14	5 3/8"				14	5 3/8"	11	16	21				
15'-0"	10 1/8"	*6 @ 12	6'-6"						14	6 1/8"				14	6 1/8"	12	17	22				

STANDARD DRAWING				APPROVAL, RECOMMENDED BY		STATE OF CALIFORNIA		DIVISION OF STRUCTURES		ROUTE 41/99 SEPARATION	
FILE NO. X8 12-79	DESIGN BY W.J. Jurkovich	CHECKED E.G. Pomery	APPROVED BY	DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		PC P/S CONCRETE DECK PANELS FOR P/S BOX GIRDERS		SHEET 25 OF 29	
DATE 5/93	DETAILS BY R. Yoo	CHECKED W.J. Jurkovich	DESIGN BY W.J. Jurkovich	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 06107 EA 342601		DISCARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	

# AS BUILT PLANS

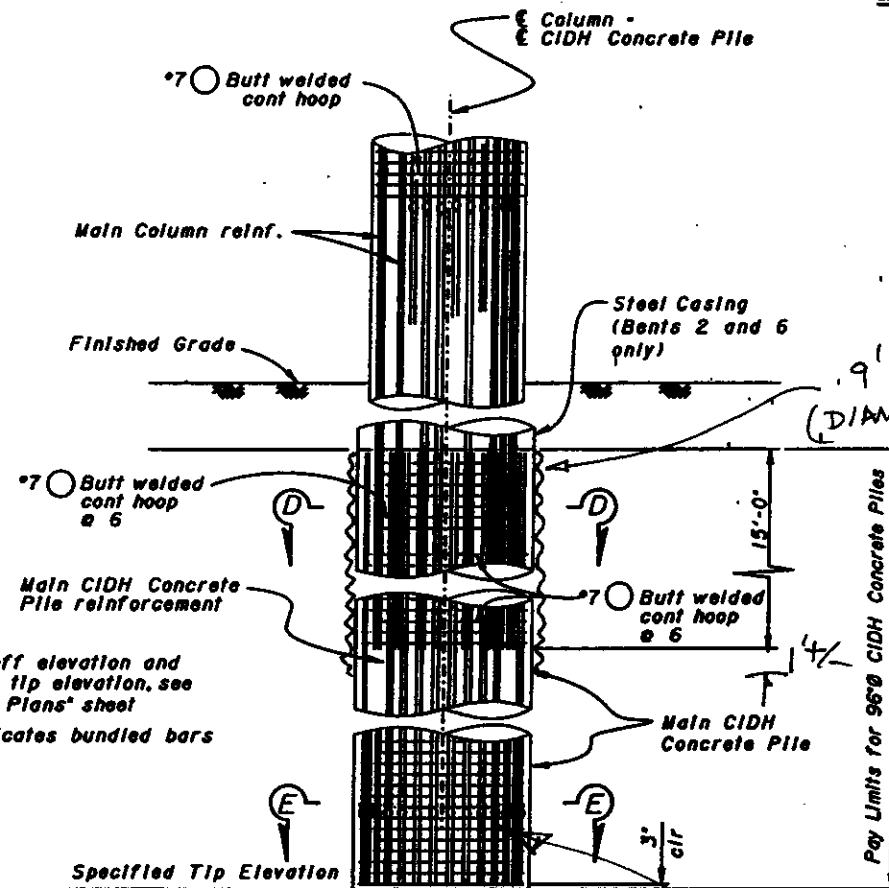
Contract No. 06-342604  
 Contractor BENCO  
 Resident Engineer L. HICKINBOTHAM  
 Date of Completion 11/9  
 BY DAVID L. VALLEJO



Individual hoops, made continuous with 100% penetration welds.

## BUTT WELDED CONTINUOUS HOOP

No Scale



### Notes:

1. For cut-off elevation and specified tip elevation, see 'Index to Plans' sheet
2. Indicates bundled bars

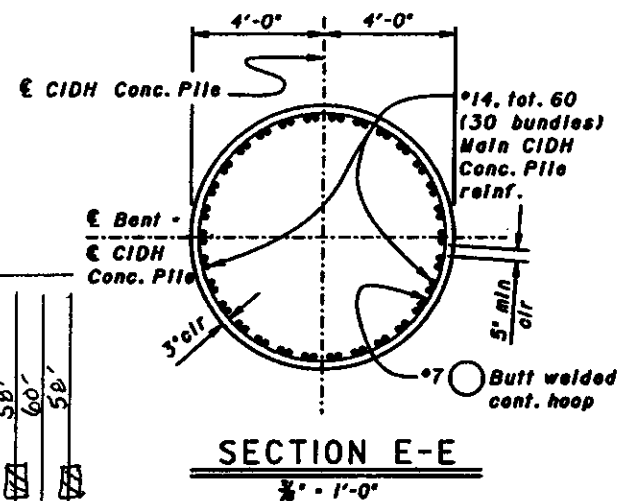
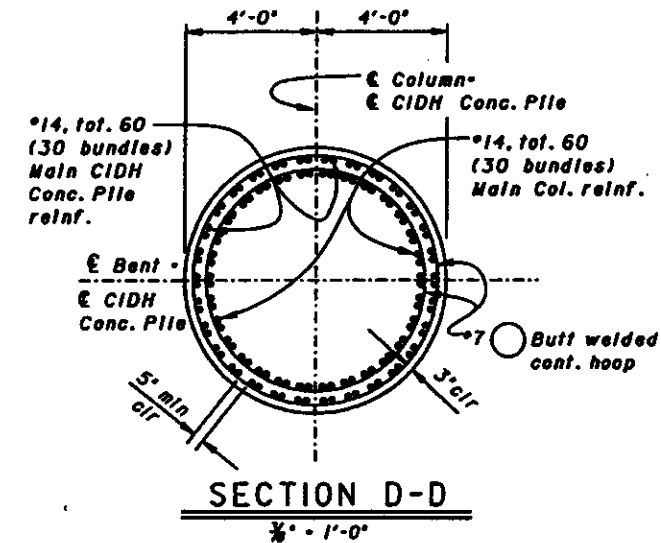
## ELEVATION

1/4" = 1'-0"

9' CMP CASING LEFT IN-PLACE (DIAM.) WITH 6" 12" 3 SACK SLURRY BACKFILL AROUND THE OUTSIDE OF CASING. TYP. ALL LOCATIONS EXCEPT BENT 2 L/R & 6 L/R. CMP CASING REMOVED FOR PLACEMENT OF ISOLATION CASING.

CUT-OFF ELEV.

2' STAGGER



DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fres	41, 99	R20.7/R22.1 19.2/19.8	299	300

REGISTERED ENGINEER - CIVIL

1-22-96

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

DESIGN	BY Stanley Ku	CHECKED Duc Trinh
DETAILS	BY Stanley Ku	CHECKED Duc Trinh
QUANTITIES	BY Stanley Ku	CHECKED Duc Trinh

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES  
 STRUCTURE DESIGN 8

PROJECT NO.  
 Q-200R/L  
 POST MILE  
 R22.1

ROUTE 41 / 99 SEPARATION  
 96"Ø CIDH CONCRETE PILE

06 050 200 (CADD 3/98)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

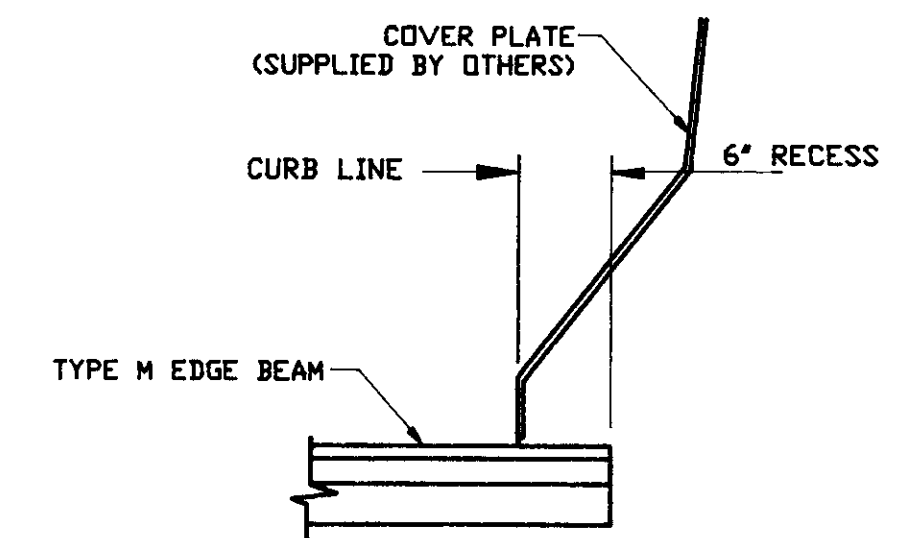
CU 0607  
 EA 342601

DESIGNED BY STANLEY KU  
 CHECKED BY DUC TRINH

REVISION DATES PRELIMINARY STAGE ONLY

PLAN SHEET OF TOTAL 9 29



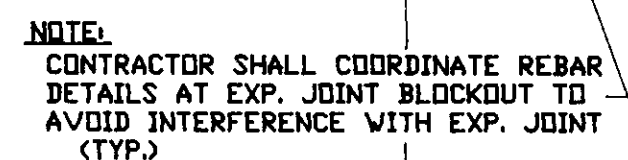


STM43011AA  
1 REQ'D @ 42-266L ABUT. 1  
1 REQ'D @ 42-266L ABUT. 7  
1 REQ'D @ 42-266R ABUT. 7



MIN. "W" = 2(2.5) + [MAX STRUCT. TEMP. - ACTUAL STRUCT. TEMP.] X [(0.000060) (1200) (CONTRIBUTORY LENGTH/100)]  
SEE CALTRANS FORM DS-D129 FOR TEMPERATURE AND CONTRIBUTORY LENGTH

1. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO FABRICATION TO ENSURE ACCURACY OF THE EXPANSION JOINT.
2. ALL MATERIALS AND FABRICATION SHALL BE IN ACCORDANCE WITH THE 1992 STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS, EXCEPT AS NOTED HEREIN.
3. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE 1992 STATE OF CALIFORNIA STANDARD SPECIFICATIONS, ANSI/AASHTO/AWS D1.5, AND THE PROJECT SPECIAL PROVISIONS.
4. THE EXPANSION JOINT ASSEMBLY SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123 AFTER FABRICATION.
5. THE EXPANSION JOINT OPENING SHALL BE PRESET BY THE MANUFACTURER TO 9 1/2" PRIOR TO SHIPPING. FINAL ADJUSTMENT SHALL BE MADE IN THE FIELD, BY THE CONTRACTOR AS DIRECTED BY THE E.I.C., PRIOR TO PLACEMENT OF CONCRETE.
6. THE NEOPRENE SEALS SHALL BE SHOP INSTALLED BY THE MANUFACTURER USING INSTALLATION TOOLS AND PRIMA-LUB ADHESIVE. THE ADHESIVE SHALL BE APPLIED TO ALL NEOPRENE/STEEL CONTACT SURFACES.  
THE NEOPRENE SEALS SHALL BE SUPPLIED IN CONTINUOUS LENGTHS. FACTORY SPLICES WILL BE PERMITTED.
7. IN HOUSE STATE INSPECTION IS NOT REQUIRED.

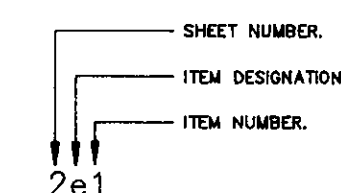


NOTE: REINFORCEMENT) AT THE TIME OF REINFORCEMENT PLACEMENT, THE EXPANSION JOINT BLOCKOUT AREA SHALL BE LAYED OUT, INCLUDING MODULAR EXPANSION JOINT SUPPORT LOCATIONS AND MODULAR LOCATION OF REINFORCEMENT SHALL BE MADE AT THIS TIME TO AVOID INTERFERENCE WITH THE MODULAR EXPANSION JOINT SUPPORT BOLTS AND/OR ANCHORAGES. U.S.A. DOES NOT REQUIRE ANY ADDITIONAL REDBAR BE PLACED FOR THE PROPER FUNCTIONING OF THE MODULAR EXPANSION JOINT.

PLACE NON-SHRINK GROUT  
BENEATH SUPPORT BOXES. (OPTIONAL)  
(SUPPLIED BY OTHERS.)  
THE CONTRACTOR SHALL INSURE  
COMPLETE CONSOLIDATION OF  
CONCRETE BENEATH SUPPORT  
BOXES.







CALTRANS:  
PLEASE VERIFY.



### MARK SYSTEM

STATE: CALIFORNIA  
COUNTY: FRESNO  
CONTRACT NO.: 06-342604  
DISTRICT: 06 ROUTE: 41,99  
BRIDGE NO.: 42-266L, 42-266R  
JOINT LOCATION: ABUT. 1 & 7, ABUT 7  
POST MILE: 35.0  
WBA PRODUCT NO.: STM42325AA

			
			
			
			
NO.	DESCRIPTION	NAME	D
<b>REVISIONS</b>			
THIS DRAWING AND THE DESIGNS, DETAILS AND/OR ENGINEERING INFORMATION CONTAINED HEREON ARE THE PROPRIETARY PROPERTY OF WATSON ROMAN AND ARE NOT TO BE REPRODUCED OR USED EXCEPT FOR THE PURPOSE FOR WHICH THEY HAVE BEEN FURNISHED. ALL RIGHTS OF THIRD PARTY INVENTION ARE HEREBY ASSIGNED.			

DETAILED BY:  MN	DATE:  8/8/96
CHECKED BY:  JFW	DATE:  8/28/96
SCALE:  N.T.S.	WBA JOB NO.:  43011
SHEET NO.:  1 OF 5	DRAWING NO.:  B-16409





(THIS IS A TEMPORARY DEVICE)

**NOTE:**

1. SHIPPING CLAMPS SHALL BE SPACED DIRECTLY BETWEEN SUPPORT BOXES, PARALLEL TO THE CENTERLINE OF THE SUPPORT BAR, AND BETWEEN ENDS OF JT. AND FIRST & LAST BOXES.
2. EACH SHIPPING CLAMP ASSEMBLY SHALL INCLUDE:
  - (1) BAR - 2B1
  - (2) 3/4" DIA. X 2 1/2" BOLT
  - (3) 3/4" HEX NUT
  - (4) 3/4" STD. WASHERS
3. CONTRACTOR TO REMOVE SHIPPING CLAMPS WHEN JOINT IS SET AND GRIND WELDS SMOOTH, AND TOUCH UP ANY DAMAGED GALVANIZED AREAS.



THIS IS A TEMPORARY DEVICE

NOTE:

1. LIFTING ANGLES SHALL BE PLACED BY THE FABRICATOR TO ACHIEVE A LEVEL LIFT FOR PLACEMENT (2 PER JT.SECTION).
2. THE CONTRACTOR SHALL REMOVE AFTER THE JOINT IS SET IN BLOCKOUT, PRIOR TO PRESETTING OF JOINT.
3. THE CONTRACTOR SHALL REMOVE BY GRINDING WELDS SMOOTH.
4. CONTRACTOR SHALL TOUCH UP ANY DAMAGED GALVANIZED AREAS.



## LEVELING ASSEMBLY

NOTES:

1. LEVELING NUTS SHALL BE LOCATED AT EVERY OTHER SUPPORT BOX.
2. LEVELING NUTS SHALL BE SHOP INSTALLED PARALLEL TO THE EXPANSION JOINT SUPPORT BARS.
3. CONTRACTOR SHALL MATCH DRILL THE TIMBER WITH THE 3/4" LAG NUTS PRIOR TO SETTING THE EXPANSION DAM IN ITS FINAL POSITION.
4. CONTRACTOR SHALL REMOVE LEVELING NUTS WHEN JOINT IS SET AND GRIND WELDS SMOOTH.
5. CONTRACTOR SHALL TOUCH UP ANY DAMAGED GALVANIZED AREAS.
6. 3/4" X 11-0" LAGSTUD (INCLUDING HARDWARE) SHALL BE REUSED FOR JOINTS STM42325AA, STM42325AB, AND BOTH STM42325AC, SUPPLIED IN WBA DRAWING B-16342.



ITEM # 1890

$$\begin{aligned} S_x &= 8,36 \\ I_x &= 22,15 \end{aligned}$$


ITEM # 1953

$$\begin{aligned} S_x &= 1.56 \\ I_x &= 2.23 \end{aligned}$$


**CURB UPTURN SPLICE**



**CURB UPTURN SPLICE**



NOTE: SHADED  
AREAS SHALL  
BE WELDED.

STATE: CALIFORNIA  
COUNTY: FRESNO  
CONTRACT NO.: 06-342604  
DISTRICT: 06 ROUTE: 41,99  
BRIDGE NO.: 42-266L, 42-266R  
JOINT LOCATION: ABUT. 1 & 7, ABUT 7  
POST MILE: 35.0  
WBA PRODUCT NO.: STM42325AA

NO.	DESCRIPTION	NAME	DATE	
<b>REVISIONS</b>				
THIS DRAWING AND THE DESIGN, DETAILS AND/OR ENGINEERING INFORMATION CONTAINED HEREIN ARE THE PROPRIETARY PROPERTY OF WATSON BOWMAN AGENT AND ARE NOT TO BE REPRODUCED OR USED EXCEPT FOR THE PURPOSES FOR WHICH THEY HAVE BEEN SUBMITTED. ALL RIGHTS OF DESIGN AND INVENTION ARE HEREBY RESERVED.				
		PROJECT:		
		ROUTE 41/99 SEPARATION		
		WBA STM-900 MODULAR STRIP SEAL EXP. JOINT		

95 PINVIEW DRIVE AMHERST, N.Y. 14228 TEL (716) 691-7588 FAX (716) 691-9239

**McKEE**

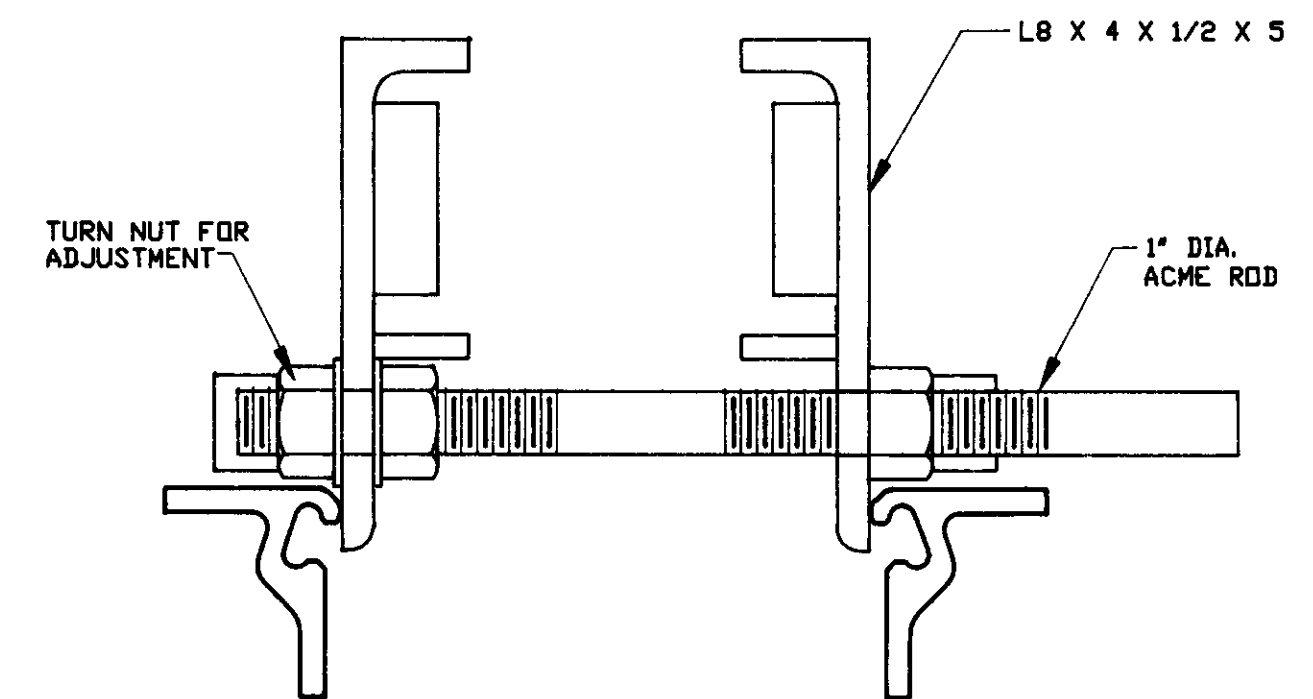
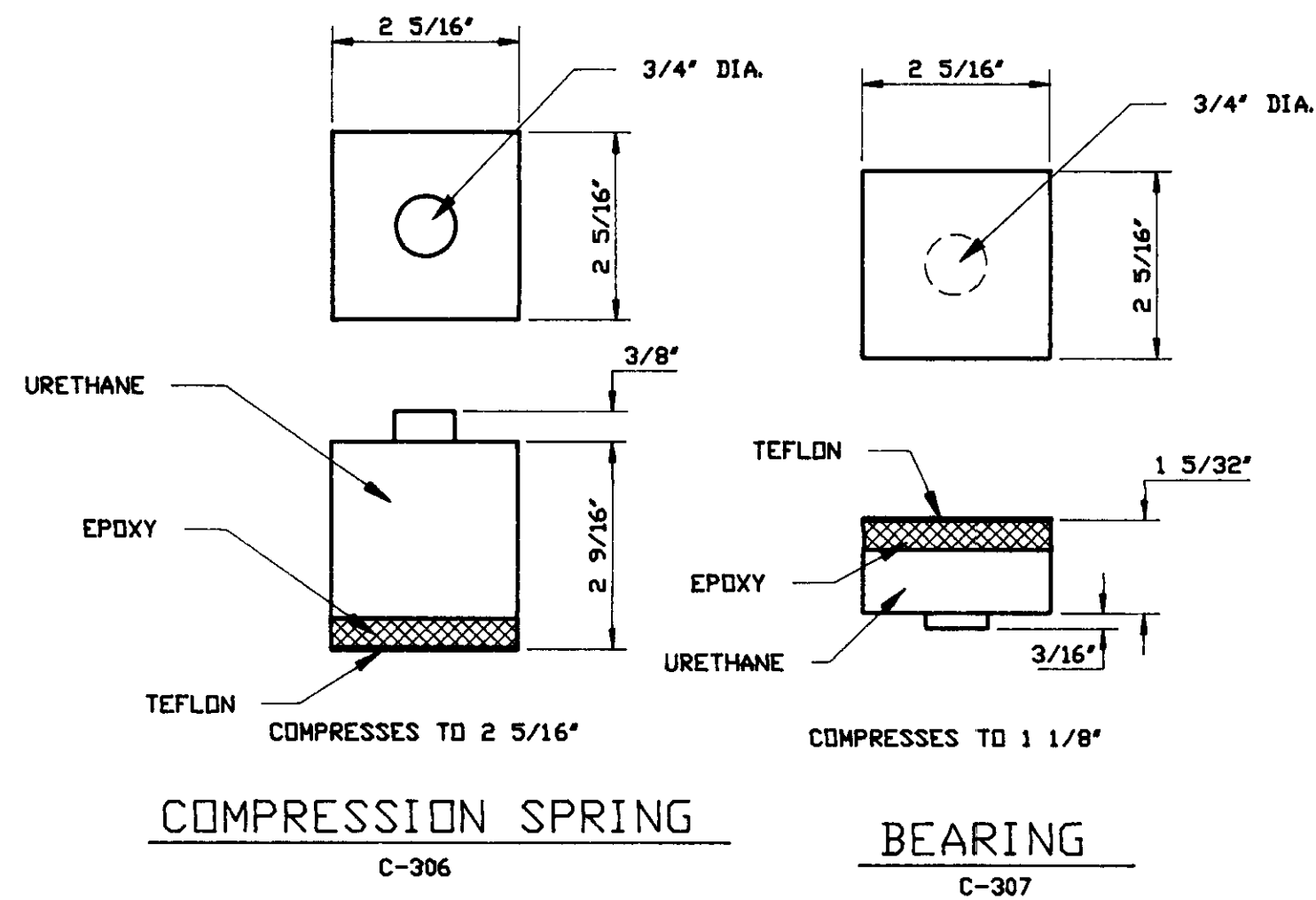
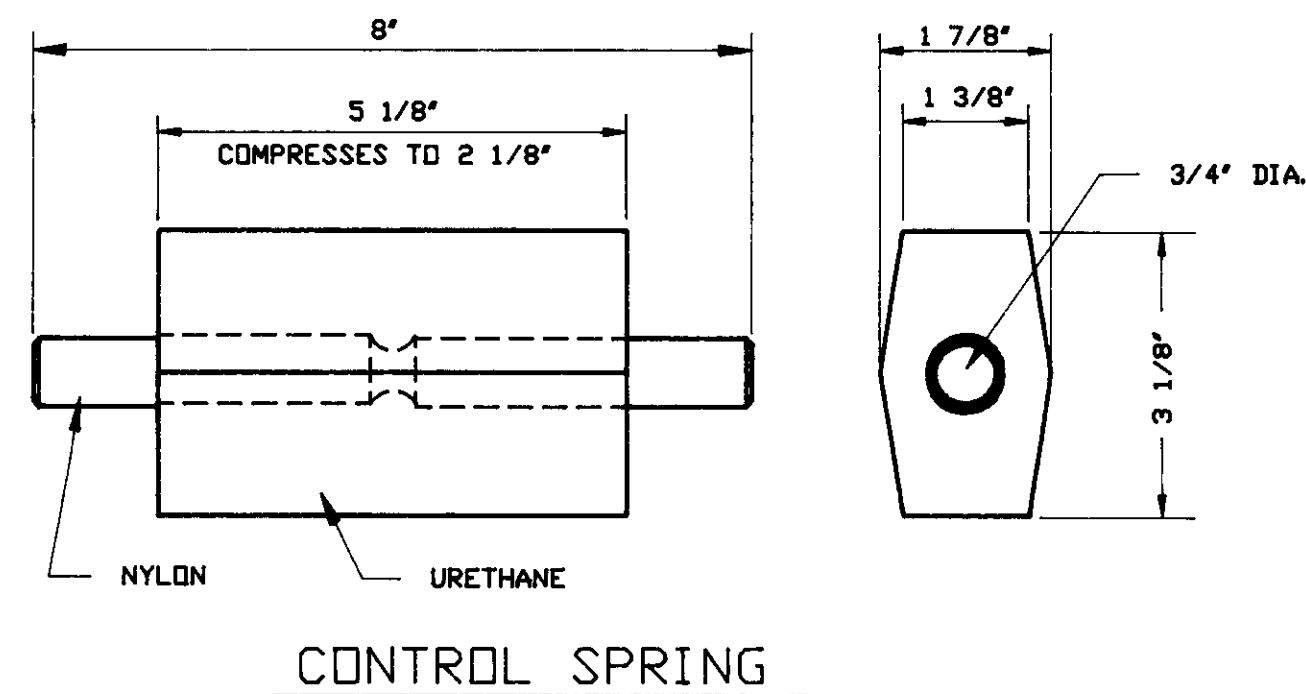
DETAILED BY: <b>MN</b>	DATE: <b>8/8/96</b>
CHECKED BY: <b>JFW</b>	DATE: <b>8/28/96</b>
SCALE: <b>N.T.S.</b>	WBA JOB NO.: <b>43011</b>
SHEET NO. <b>2 OF 5</b>	DRAWING NO. <b>B-16409</b>



# STRUCTURED BILL OF MATERIALS FOR STM43011BR1

LV	PART NO.	QTY.	REQ'D	U/M	DESCRIPTION	MATERIAL	REV. #
0	STM43011BR1	1.000	EA	STM-900 SUP'T BAR 3P1 B-16409(X	GALVANIZED BARS		
1	3734	57.000	LB	PLATE 3"	A-36		
1	4323	2.000	EA	MOD SUP STOP BAR C-13159	A-36		
1	STM43011BR101	2.000	EA	FLAT BAR SS 3 1/4" X 6" (3M1)(X			
2	8570	0.700	LB	STNLS STL 12GA TYPE 304 2B FIN			
1	STM43011BR102	2.000	EA	FLAT BAR SS 3 1/4" X 9" (3M2)(X			
2	8570	1.000	LB	STNLS STL 12GA TYPE 304 2B FIN			

\*\*\*\*\* END OF STRUCTURED BILL OF MATERIALS \*\*\*\*\*

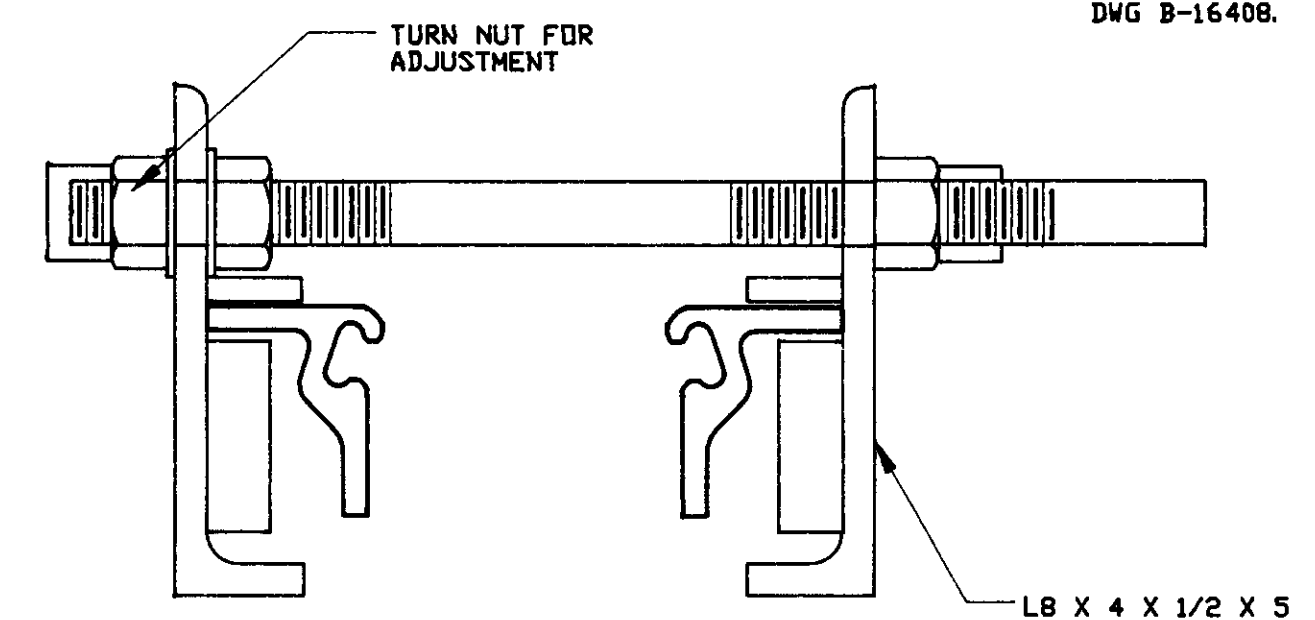


## PRESTRESS DEVICE

(PART # 4324)

POSITION FOR EXPANSION

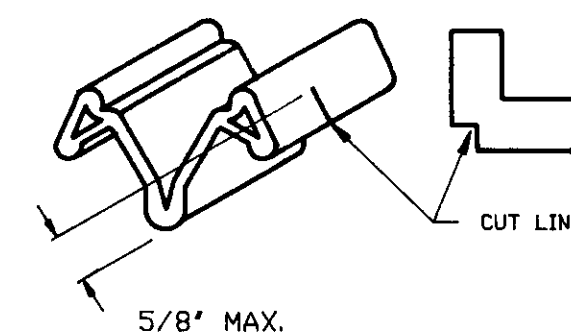
NOTE: PRESTRESS DEVICE TO BE USED ON ALL JOINTS INCLUDING THOSE ON WBA DWG B-16408.



## PRESTRESS DEVICE

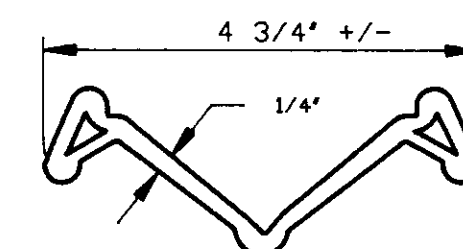
(PART # 4324)

POSITION FOR COMPRESSION



## SEAL TREATMENTS AT CURB

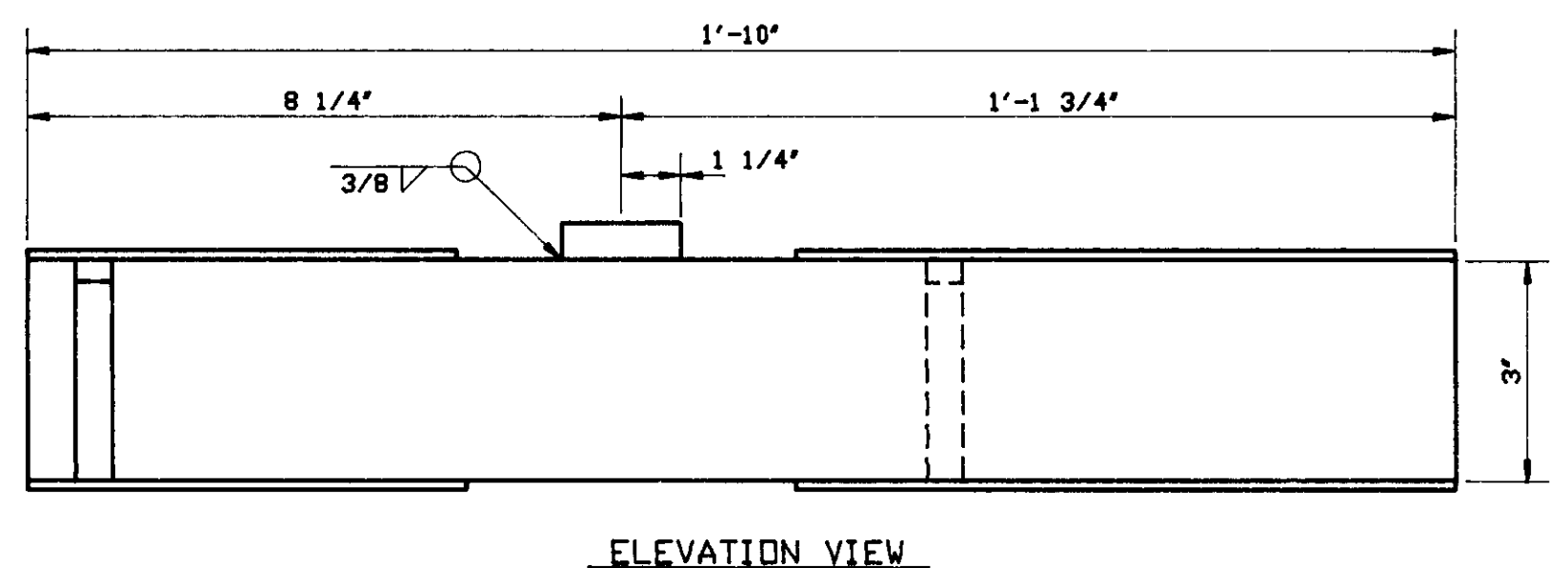
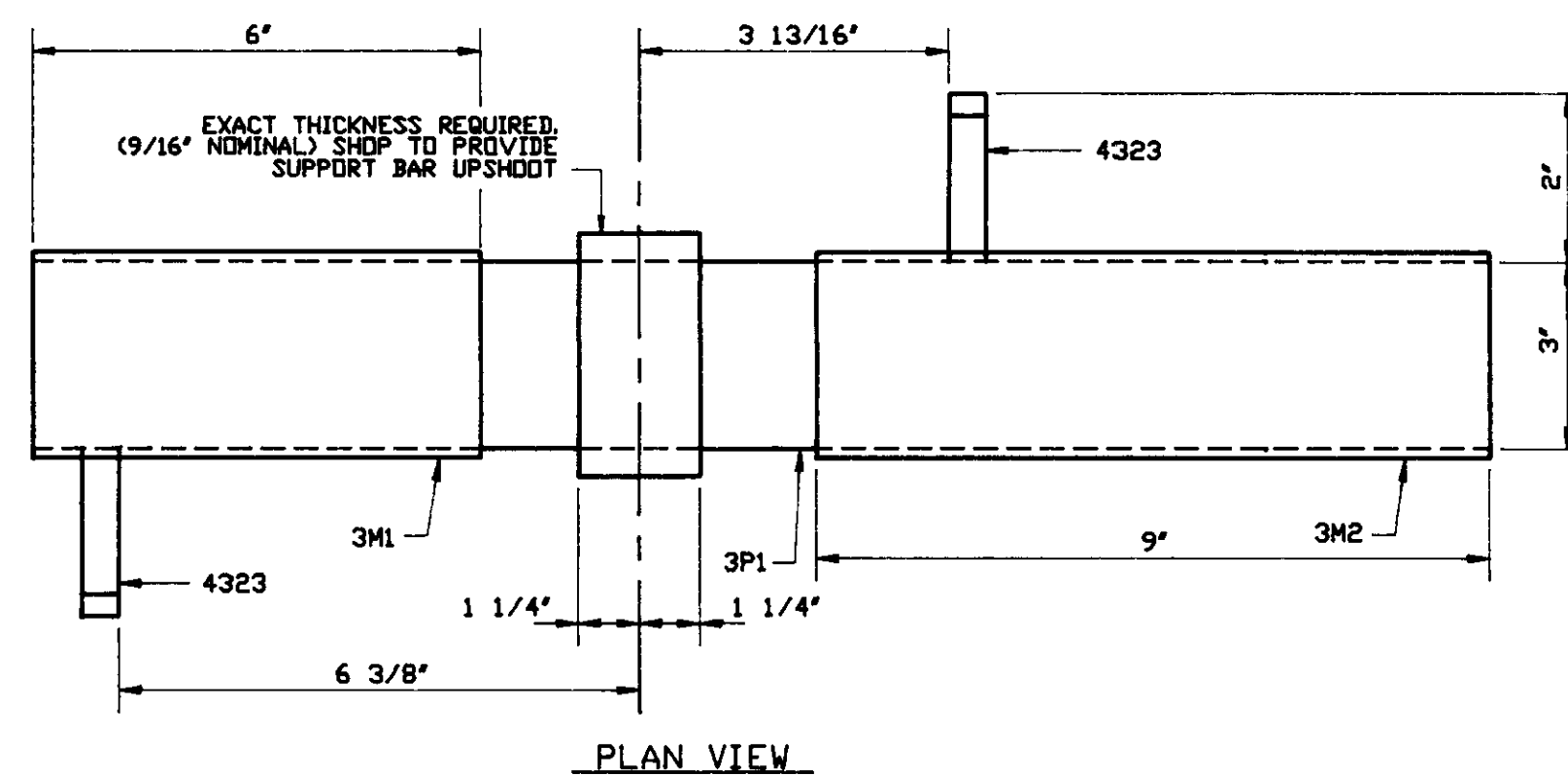
(TO BE USED FOR ANGLES GREATER THAN 60°)



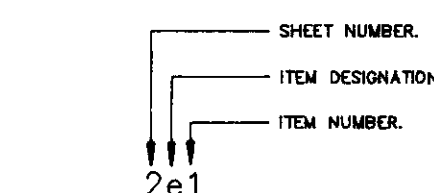
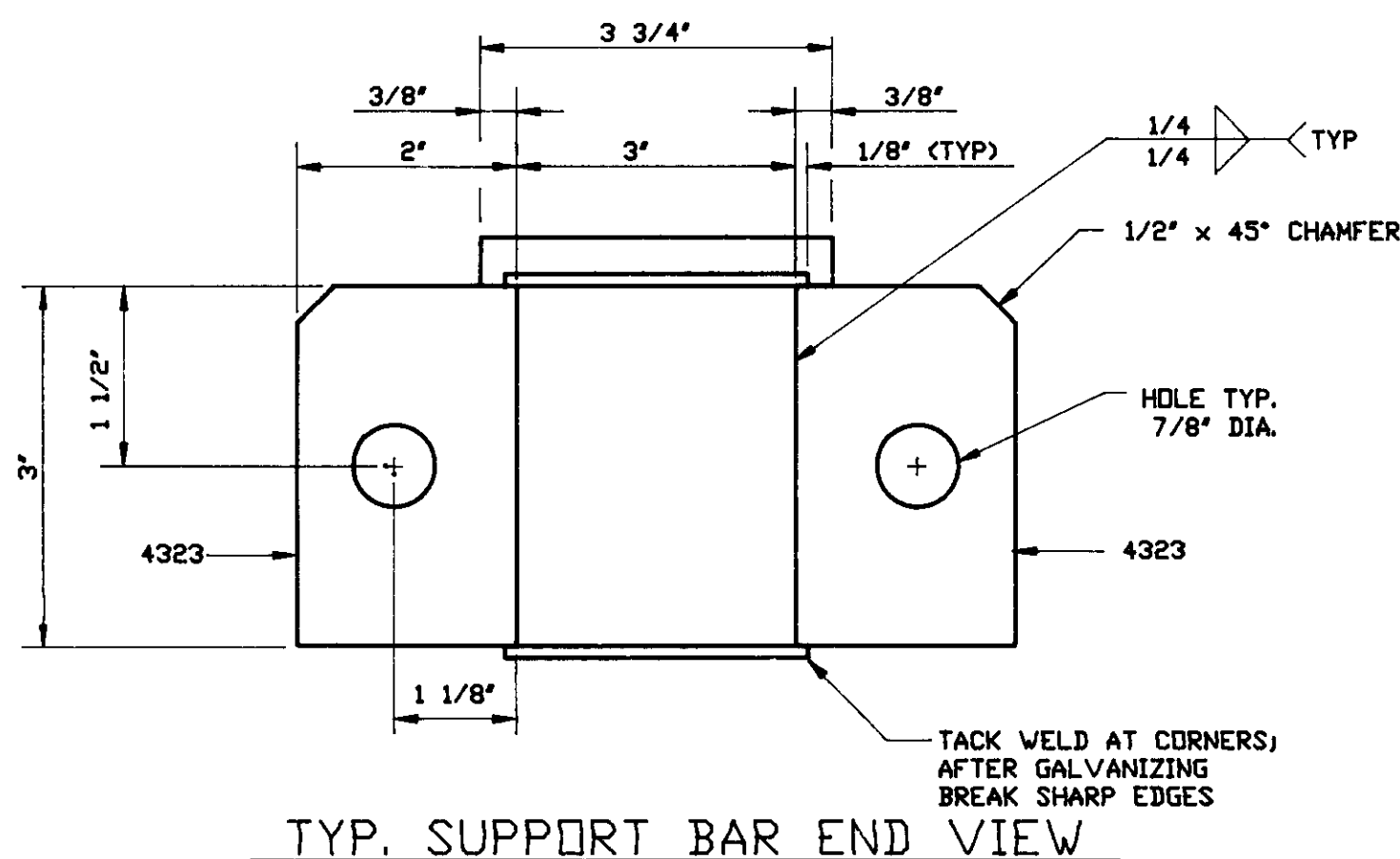
MOVEMENT RATING - 3"

## SE-300 SEAL

ITEM # 093



## SUPPORT BAR - 3P1



## MARK SYSTEM

NO.	DESCRIPTION	NAME	DATE
1	REVISIONS		
2			
3			
4			
5			

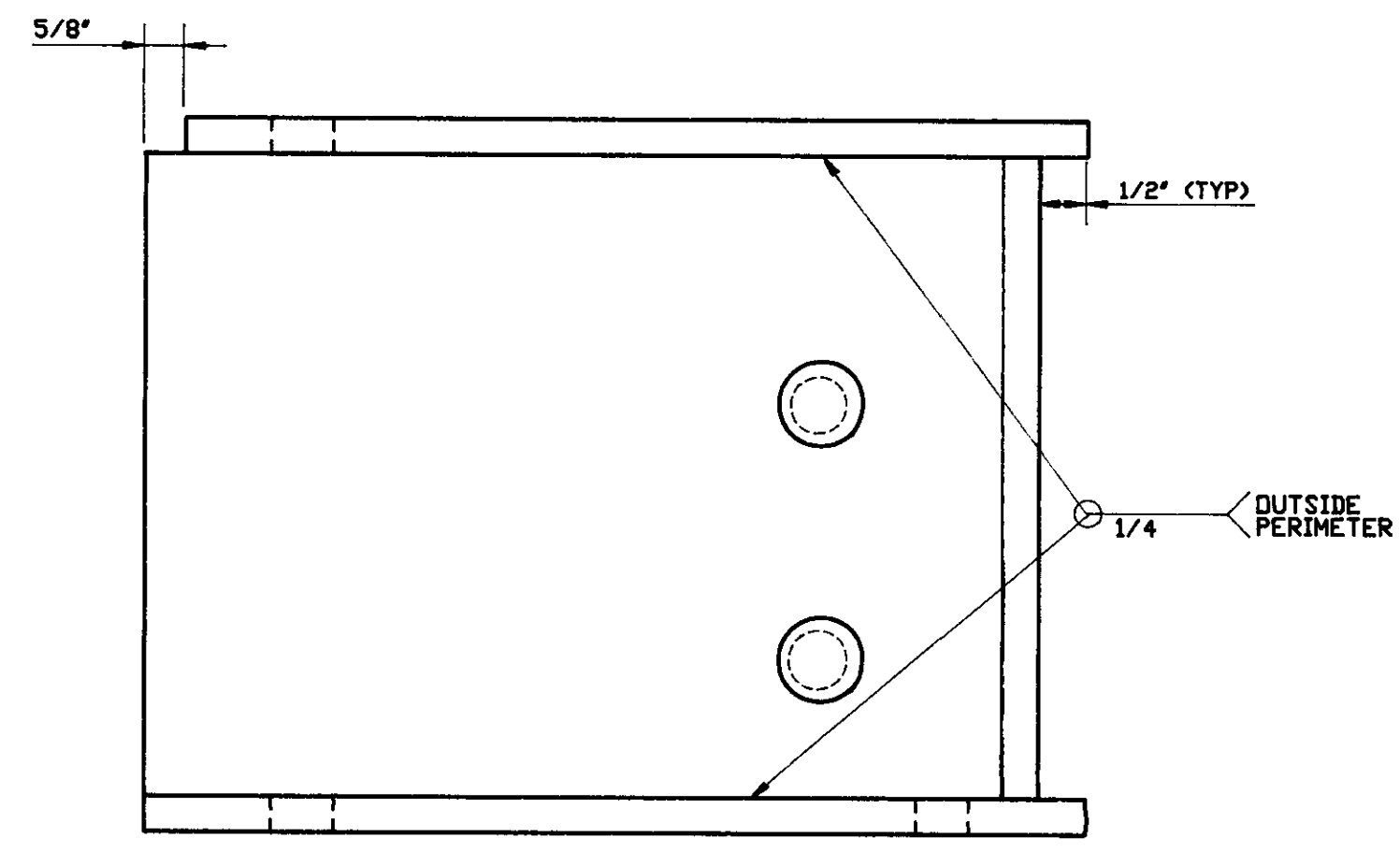
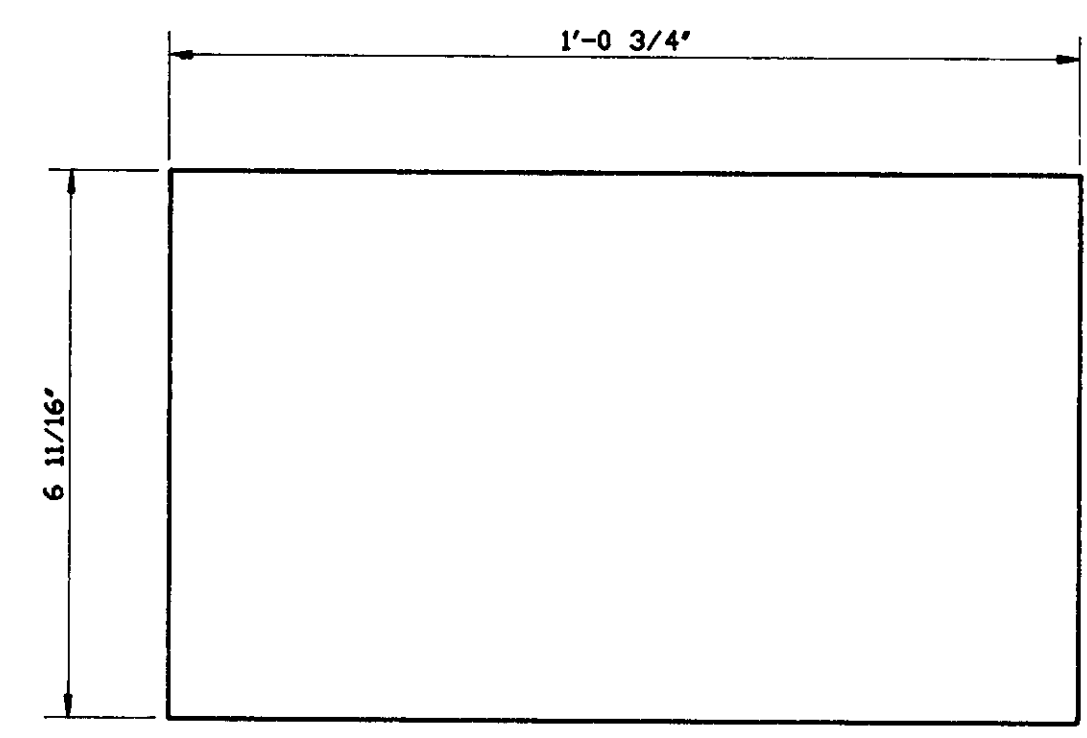
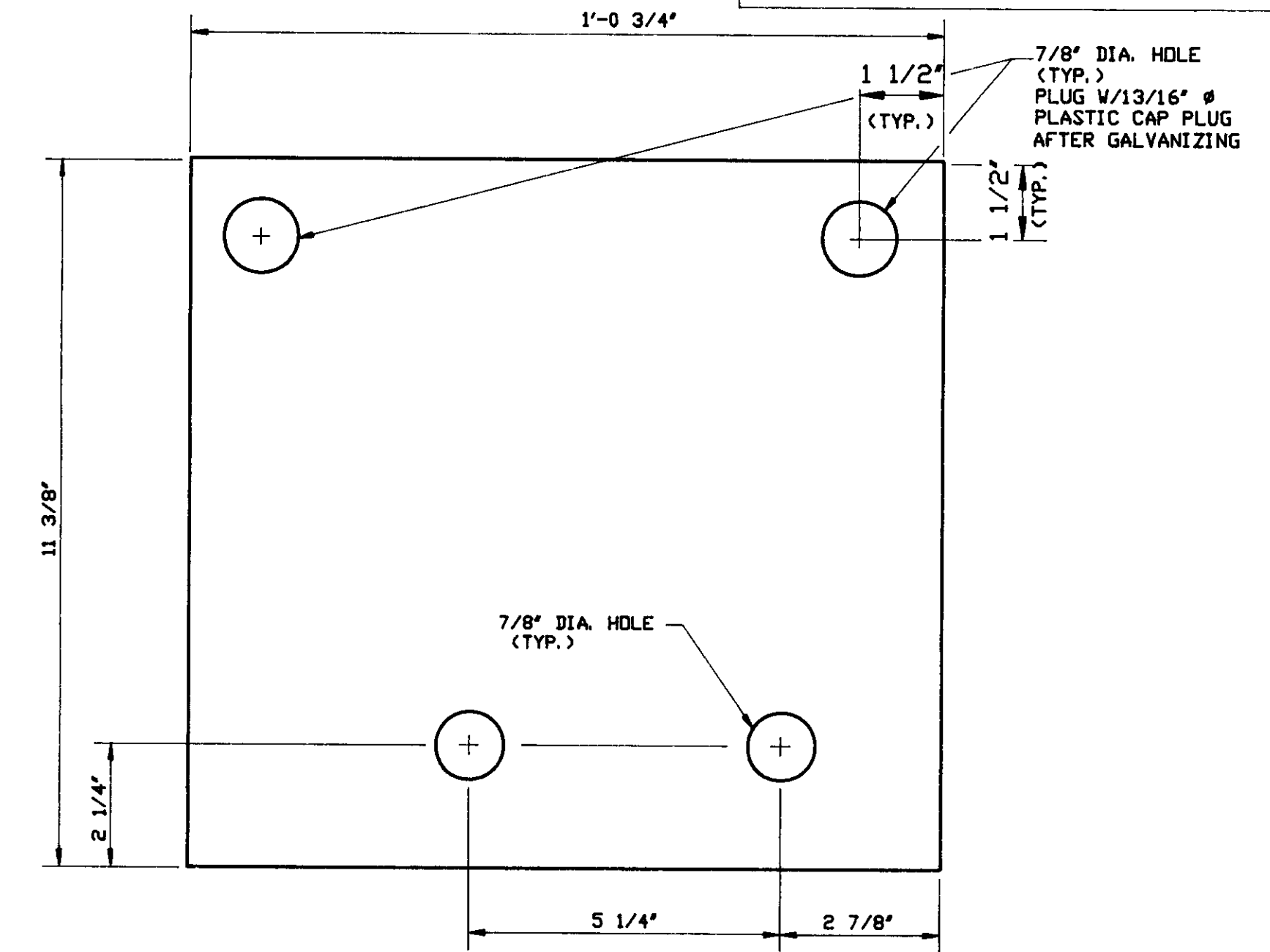
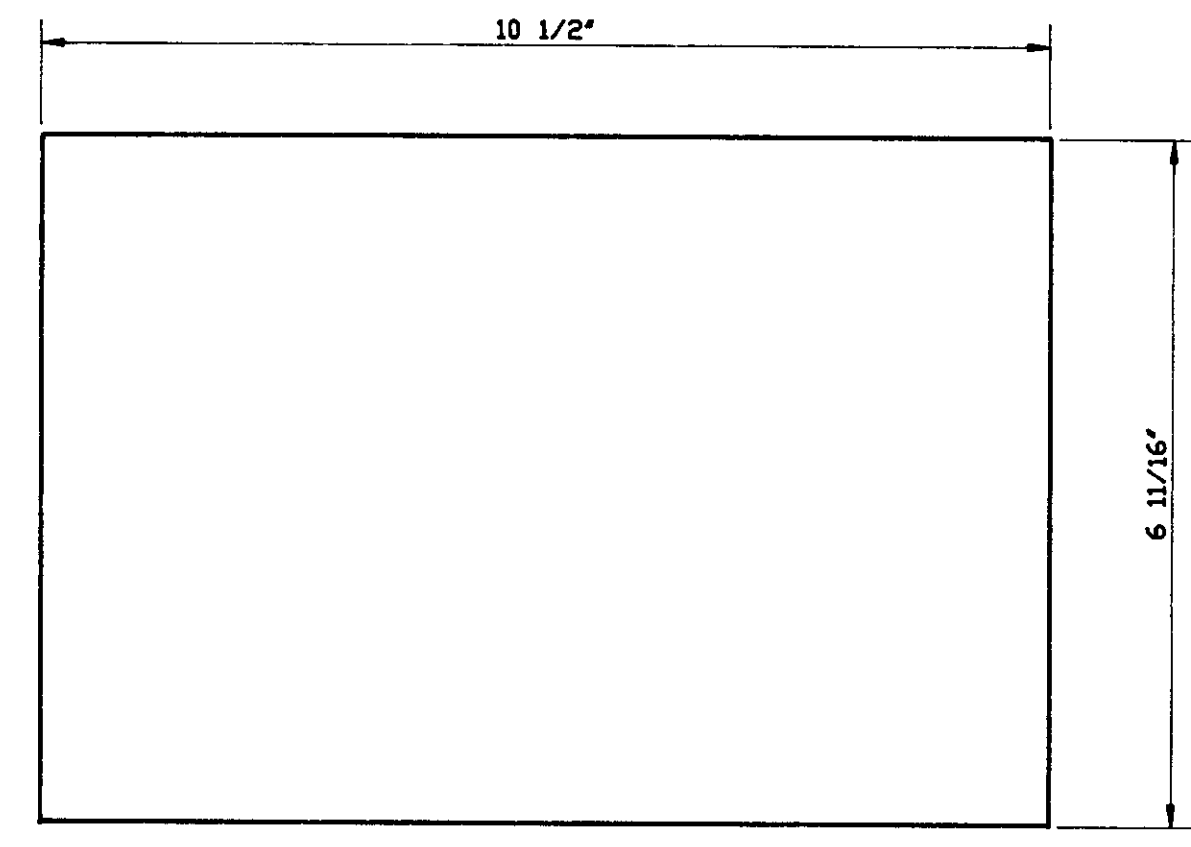
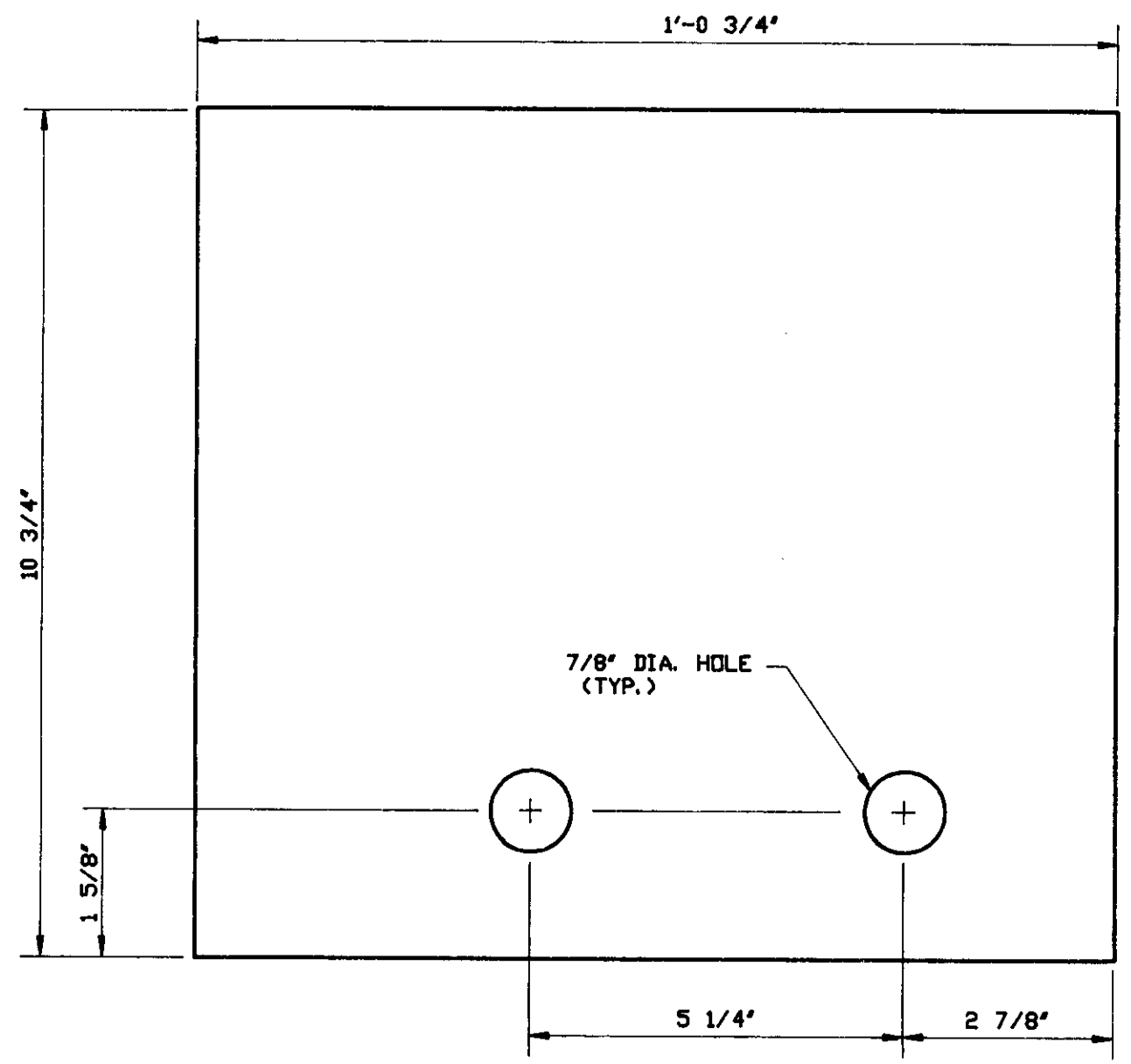
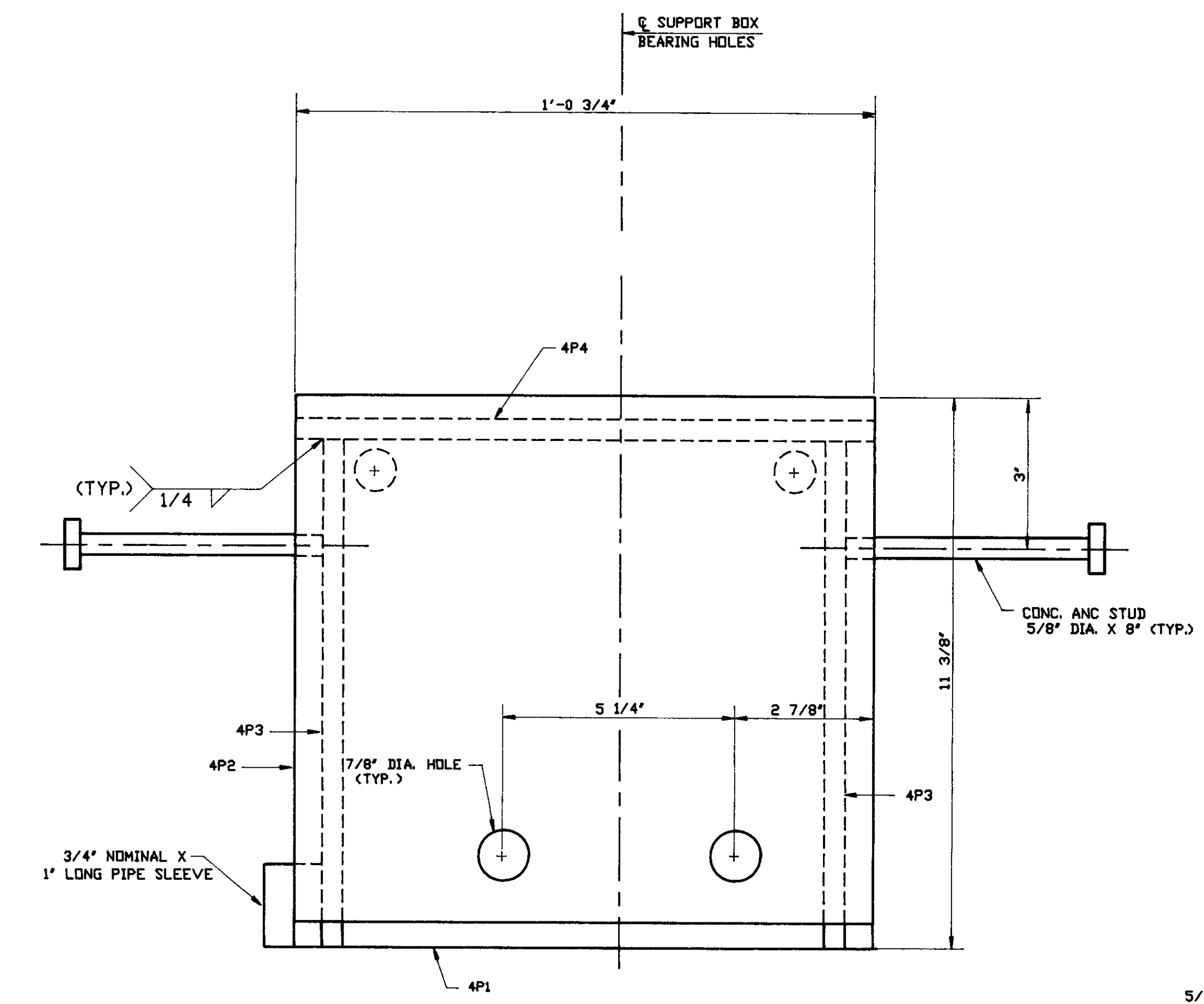
<b>Watson Bowman Acme</b> 95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL (716) 891-7588 FAX (716) 891-9239	<b>HARRIS SPECIALTY CHEMICALS, INC.</b> A DIVISION OF
PROJECT: ROUTE 41/99 SEPARATION WBA STM-900 MODULAR STRIP SEAL EXP. JOINT	SHEET NO.: 3 OF 5 DRAWING NO.: B-16409

STATE:	CALIFORNIA
COUNTY:	FRESNO
CONTRACT NO.:	06-342604
DISTRICT:	06 ROUTE: 41,99
BRIDGE NO.:	42-266L, 42-266R
JOINT LOCATION:	ABUT. 1 & 7, ABUT 7
POST MILE:	35.0
WBA PRODUCT NO.:	STM42325AA

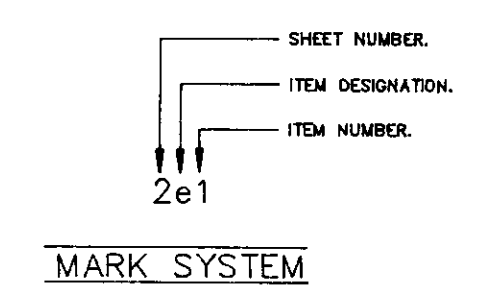
DETAILED BY: MN CHECKED BY: JFW SCALE: N.T.S. SHEET NO.: 3 OF 5	DATE: 8/8/96 DATE: 8/28/96 WBA JOB NO.: 43011 DRAWING NO.: B-16409
--	---

STRUCTURED BILL OF MATERIALS FOR STM43011BX1

STM43011BX1		QTY. REQ'D: 1 EA		STRUCTURED BILL OF MATERIALS		DWG NO.: B-16409	
LV	PART NO.	QUANTITY	U/M	DESCRIPTION	MATERIAL	REV.	#
0	STM43011BX1	1.000	EA	STM-900 SUPPORT BOX B-16409 (X	GALVANIZED BOXES		
1	3540	54.500	LB	PLATE 3/8"	A-36		
1	7233	2.000	EA	PIPE 3/4" NOMINAL SCH 40 X 1'			
1	STM43011BX101	1.000	PK	PARTS FOR BOX ASSEMBLY	(U		
2	4640	4.000	EA	CONC. ANC. 5/8" X 8" NP	A-108		
***** END OF STRUCTURED BILL OF MATERIALS *****							



SUPPORT BOX ASSEMBLY



STATE: CALIFORNIA  
COUNTY: FRESNO  
CONTRACT NO.: 06-342604  
DISTRICT: 06 ROUTE: 41,99  
BRIDGE NO.: 42-266L, 42-266R  
JOINT LOCATION: ABUT. 1 & 7, ABUT 7  
POST MILE: 35.0  
WBA PRODUCT NO.: STM42325AA

95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL. (716) 891-7588 FAX (716) 891-9239		A DIVISION OF HARRIS SPECIALTY CHEMICALS, INC.	
PROJECT: ROUTE 41/99 SEPARATION WBA STM-900 MODULAR STRIP SEAL EXP. JOINT		SCALE: N.T.S.	
SHEET NO.: 4 OF 5		DRAWING NO.: B-16409	

DETAILED BY: MN	DATE: 8/8/96
CHECKED BY: JFW	DATE: 8/28/96
WBA JOB NO.: 43011	



STM4301AA		QTY: 3 REQ'D.	STRUCTURED BILL OF MATERIALS			DWG. NO: B-16409
LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REV.
0	STM4301AA	1.000	EA	STM-900, 40.4 FT CX	SHIPPING LENGTH 40.0' +/- JOINTS ARE GALVANIZED	
1	STM4301IS	3.000	EA	SEAL FOR SHOP INSTALL		
2	093	42.000	FT	SE-300 STRIP SEAL		
1	STM4301AB03	18.000	EA	HOLDING PLATE (2PI) CX		
2	3560	2.000	LB	PLATE 1/2"	A-36	
1	STM4301AA01	1.000	EA	EXTRUSION ASSEMBLY CX		
2	STM4301AA02	1.000	EA	PROFILES CV		
3	1953	80.000	FT	SSH FM 2-3/4" X 3-1/4" C-11069	A-36	
3	1890	82.000	FT	MOD CB FM SS C-12183	A-36	
3	1918	2.000	FT	SS A3 FM 1-1/4" X 2" C-11810	A-36	
2	STM4301IBX1	18.000	EA	STM-900 SUPPORT BOX B-16409 CX	A-36	
2	STM4301IBR1	18.000	EA	STM-900 SUPPORT BAR B-16409 CX	A-36	
2	STM4301AA03	1.000	PK	PARTS FOR ASSEMBLY CU		
3	4260	36.000	EA	MOD BEARING (UPPER) C-306	COMPRESSION SPRING, URETHANE	
3	4270	36.000	EA	MOD CONTROL BEARING (LOWER) C-307	COMPRESSION SPRING, URETHANE	
3	4321	36.000	EA	MOD CONTROL SPRING BUFFER	C-13751	
3	4320	36.000	EA	MOD CONTROL SPRING DOVEL 8"	C-13746	
3	5304	56.000	EA	BOLT 3/4" X 2-1/2" ZP	A-325	
3	8021	56.000	EA	NUT 3/4" ZP	A-325	
3	7602	20.000	EA	WASHER 3/4"	F-436	
3	8084	10.000	EA	NUT 3/4" NL LAG ZP		
3	4640	52.000	EA	CONC ANC STUD ST 5/8" X 8"	A-108	
3	3468	2.000	EA	RUSTOLEUM 2117 GALV. SPRAY PAINT		
2	STM4301AB05	50.000	EA	CONC ANC BENT		
3	4640	1.000	EA	CONC ANC STUD ST 5/8" X 8"	A-108	
2	STM3614AB06	36.000	EA	STIFFNER PLATE (1PI) CX		
3	3540	1.230	LB	3/8" PLATE	A-36	
2	STM4301AB07	20.000	EA	SHIPPING CLAMP (2BI) CV		
3	5931	1.260	FT	FLAT BAR 3/8 X 4	A-36	
2	STM4301AB08	2.000	EA	LIFTING ANGLE (2AI) CV		
3	4130	1.300	FT	ANGLE 7" X 4" X 1/2"	A-36	

MATERIAL SPECIFICATIONS

STEEL EDGE & SUPPORT BEAMS - All beams are made of ASTM A-36 grade steel and have grooves which grip the neoprene locking seal.

NEOPRENE LOCKING SEAL - Seals shall be in accordance with ASTM D-2628. The neoprene locking seal is bonded to the steel beams with Prima-Lub Adhesive. The neoprene seal is designed to absorb all joint movements. The physical properties of the locking seal are as follows:

PHYSICAL PROPERTIES	PROCEDURE	REQUIREMENT
Tensile Strength	(D-412)	2000 PSI
Elongation at Break	(D-412)	250%
Hardness, Type A Durometer	(D-2240) MOD.	55 - 70
Compression Set 70 hour at 212°F (D)	(D-395) Method B Mod.	40%
Oven Aging, 70 hour at 212°F Tensile Strength, loss, max. Elongation, loss, max. Hardness, Type A Durometer (points change)	(D-573)	20% 20% 0 to +10
Oil Swell, Astm #3, 70 hour at 212°F, weight change max.		45%
Ozone Resistance, 20% strain 300 PPHM, in air at 104°F (wiped with toluene to remove surface contamination)	(D-1149)	No Cracks

COMPRESSION SPRING C-306 - This compression spring is composed of urethane, epoxy and 3/64" thick teflon sheet. The compression spring sits on top of the support bar. The physical properties of the urethane are:

Shore Durometer	(ASTM D-2240)	90A
Elongation at Break	(ASTM D-412)	425%
Tensile Strength	(ASTM D-412)	6500 PSI
100% Modulus	(ASTM D-412)	1200 PSI
300% Modulus	(ASTM D-412)	2400 PSI
Tear Strength	(ASTM D-470)	110 PLI
Rebound Resilience	(ASTM D-2632)	40%

CONTROL SPRING - The control spring which is located between the support bars act to equalize the expansion of each seal. The control spring is made of URETHANE.

STAINLESS STEEL - Stainless steel is used on the sliding surfaces of the support bar that contact the teflon surface of the bearing and compression spring. The stainless shall be ASTM A167, Type 304 No. 2B finish.

PRIMA-LUB ADHESIVE - Prima-lub Adhesive is used to bond the neoprene locking seal to the steel extrusions. This adhesive shall be a one-part moisture curing polyurethane and hydrocarbon solvent mixture with the following physical properties:

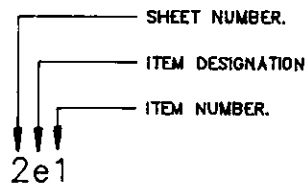
Average Weight per Gallon	8.5 lbs +/- 10%
Solids Content	72% (min.)
Adhesive to remain workable	From 5-120°F
Film Strength	2000 PSI (min.)
Elongation at room temperature	350% (min.)
Flash Point (seta closed cup)	over 100°F

BEARING C-307 - The bearing is composed of urethane, epoxy and 3/64" thick teflon sheet on which the support bar slides on. The physical properties of the urethane are:

Shore Durometer	(ASTM D-2240)	90A
Elongation at Break	(ASTM D-412)	425%
Tensile Strength	(ASTM D-412)	6500 PSI
100% Modulus	(ASTM D-412)	1200 PSI
300% Modulus	(ASTM D-412)	2400 PSI
Tear Strength	(ASTM D-470)	110 PLI
Rebound Resilience	(ASTM D-2632)	40%

INSTALLATION PROCEDURE

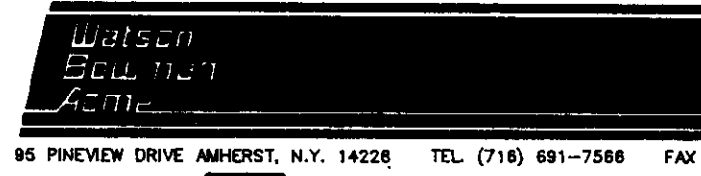
- STEP 1. VERIFY THE DIMENSIONS OF THE BLOCKOUT A-A ON SHEET 1. CORRECT AS NECESSARY.
- STEP 2. LIFT AND PLACE EXPANSION JOINT INTO BLOCKOUT. WHILE JOINT IS SUSPENDED, INSTALL LEVELING DEVICES AND ADJUST TO PROPER GRADE AND ELEVATION.
- STEP 3. CHECK JOINT FOR ALIGNMENT WITH CURBS. REMOVE LIFTING ANGLES AND GRIND WELDS SMOOTH. LOOSEN BOLTS AT SHIPPING CLAMPS IF REQUIRED TO ADJUST THE EXP. JOINT.
- STEP 4. PRESET THE EXPANSION JOINT OPENING AS DIRECTED BY THE FIELD ENGINEER. TIGHTEN BOLTS AT SHIPPING CLAMPS.
- STEP 5. PRIOR TO PLACEMENT OF CONCRETE, ALL PRESTRESS DEVICES SHALL BE REMOVED. DEVICES ON TOP OF THE JOINT MAY REMAIN IF THEIR LOCATION WILL NOT INTERFERE WITH CONCRETE PLACEMENT OR EXPANSION JOINT PERFORMANCE.
- STEP 6. TEMPERATURE AND JOINT OPENING SHOULD BE CHECKED FOR ANY DISCREPANCIES FROM INITIAL ADJUSTMENT.
- STEP 7. CONTRACTOR SHALL AT THIS TIME HAVE REQUIRED FORMWORK IN PLACE.
- STEP 8. ALL CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- STEP 9. UPON COMPLETING CONCRETE PLACEMENT OPERATIONS, LOOSEN NUTS AT SHIPPING CLAMPS. THE ENGINEER SHALL DETERMINE WHEN REMOVAL OF THE LEVELING DEVICES WILL BE PERMITTED.
- STEP 10. CONTRACTOR SHALL REMOVE ALL TEMPORARY DEVICES FROM TOP OF JOINT AND TOUCH UP ALL AREAS OF DAMAGED GALVANIZING.



MARK SYSTEM

STATE: CALIFORNIA  
COUNTY: FRESNO  
CONTRACT NO.: 06-342604  
DISTRICT: 06 ROUTE: 41,99  
BRIDGE NO.: 42-266L, 42-266R  
JOINT LOCATION: ABUT. 1 & 7, ABUT 7  
POST MILE: 35.0  
WBA PRODUCT NO.: STM42325AA

NO.	DESCRIPTION	NAME	DATE
REVISIONS			
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A DIVISION OF HARRIS SPECIALTY CHEMICALS, INC.

PROJECT: ROUTE 41/99 SEPARATION

WBA STM-900 MODULAR STRIP SEAL EXP. JOINT

DETAILED BY: MN	DATE: 8/8/96
CHECKED BY: JFW	DATE: 8/28/96
SCALE: N.T.S.	WBA JOB NO.: 43011
SHEET NO.: 5 OF 5	DRAWING NO.: B-16409